Cellebrite READER

User Manual

May 2023 | Version 7.62

Cellebrite

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1. Introduction

Welcome to the Cellebrite Reader. The Cellebrite Reader enables you to open reports, perform your own search and analysis on the analyzed information, and perform actions such as generate reports, create entity bookmarks, and more.

The Cellebrite Reader is an application that reads .ufdr files, the report files generated from analyzed data of a physical, file system, or logical extraction by Physical Analyzer and Logical Analyzer. You can also view UFED Cloud extraction reports in the Cellebrite Reader.

The Cellebrite Reader is available to everyone and is typically distributed by users of Physical Analyzer and Logical Analyzer. No installation or licensing is required.

2. Getting started

This section includes the following:

Acquiring Cellebrite Reader (below)

Opening Cellebrite Reader (on the next page)

Opening a file for analysis (on page 14)

Opening an encrypted zip file (on page 14)

Saving a project session (on page 16)

Loading a project session (on page 19)

Closing Cellebrite Reader (on page 19)

Keyboard shortcuts (on page 19)

2.1. Acquiring Cellebrite Reader

You can acquire Cellebrite Reader in the following ways:

- Through the Physical Analyzer installation
- Through the Logical Analyzer installation
- When generating a UFDR file in Physical Analyzer or Logical Analyzer, select **Include Reader**.
- Download from MyCellebrite

2.1.1. System requirements

PC	Windows compatible PC with Intel i5 and higher or compatible
Operating System	Microsoft Windows 11, 64-bit Microsoft Windows 10, 64-bit
Memory (RAM)	32 GB
Space requirements	120 MB of free disk space for installation
GPUs Graphics Processing Units[1] (Recommended)	NVIDIA® GPU card with CUDA© compute capability 3.5 or higher). See the list of CUDA-enabled GPU cards. Supported GPU cards include: NVIDIA GeForce GTX 1070/2070/2080, NVIDIA GeForce GTX 1080, NVIDIA GeForce GTX 2080, NVIDIA Quadro P6000, NVDIA Quadro Pro P6000, NVIDIA RTX 4000/5000/6000, NVIDIA Tesla P40, NVIDIA Tesla M60, NVIDIA V100, Tesla K80, Tesla M60, Tesla P40, Tesla T4, » NVIDIA Ampere (A2000, RTX A4000, RTX A4500, A2). GPU to have a minimum of 4 GB *We recommend the GPU to boost the speed of processing the CSA category in the Media classification engine.
Additional Requirements	Microsoft .NET version 4.6.2 Windows Media Player (default version for installed operating system or higher) to use the Capture tool and play video playback.
Permissions	If you intend to activate the application using a hardware license key (dongle) provided by Cellebrite, you must have administrative rights to the computer.

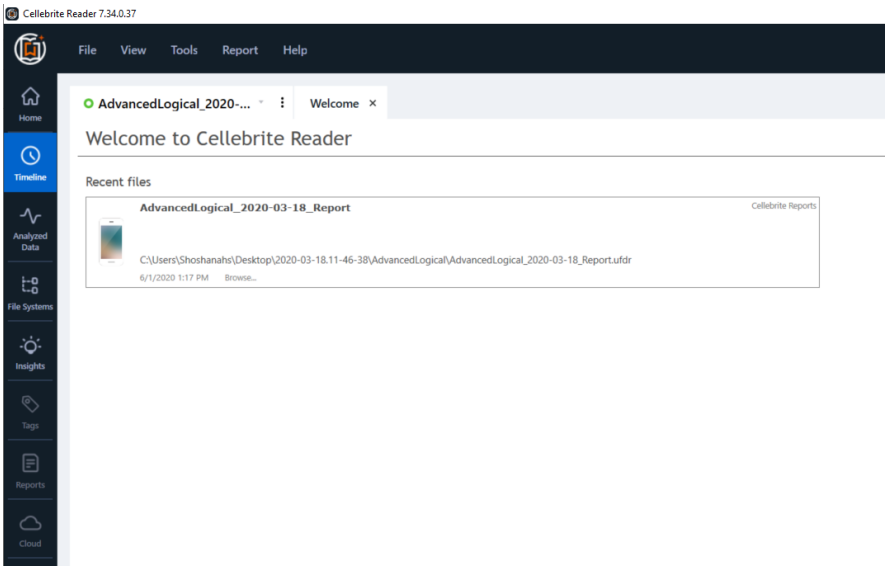
[1]**GPUs:** - If your computer has a supported GPU, the GPU is installed automatically during installation of Physical Analyzer. Adding support for GPU's within the processing flow, using the graphics processor in the computer to **significantly improves Media Analysis performance results**.

2.2. Opening Cellebrite Reader

The Cellebrite Reader does not require installation; you can save and open the application from any computer or USB drive.

1. Save the **UFEDReader.exe** file to the desired location.
2. Double-click **UFEDReader.exe**.

   Cellebrite Reader opens.



If you have not activated Reader previously, the Reader Activation Window appears, see Activating Cellebrite Reader (on the facing page).

2.3. Activating Cellebrite Reader

Activate Cellebrite Reader to benefit from exclusive features and enrichment capabilities, such as converting Wi-Fi (BSSID) and cell tower identities into physical locations.

To activate Cellebrite Reader:

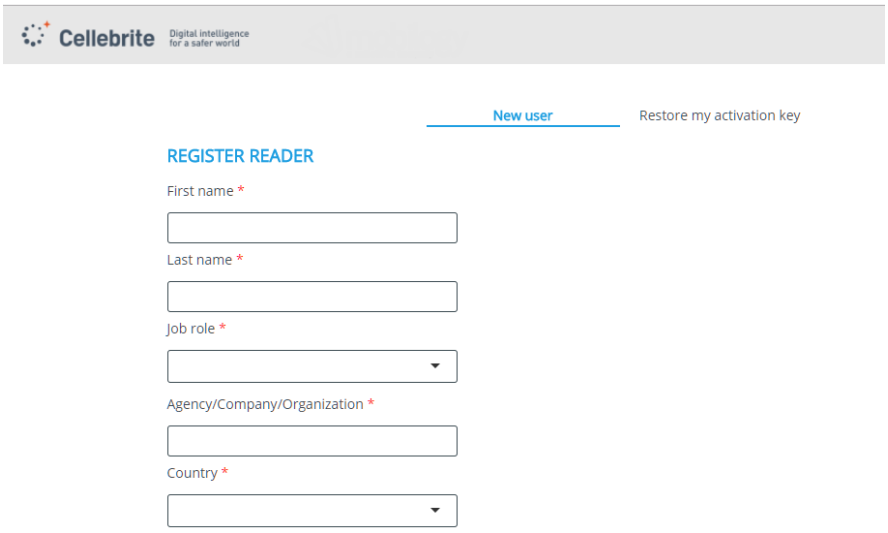
1. When Cellebrite Reader starts for the first time or it has not yet been activated, the Reader Activation window appears.

Reader Activation
READER ACTIVATION
I am a new user
I have an activation code
By activating your Reader you will benefit from exclusive features and enrichment capabilities, such as converting Wi-Fi (BSSID) and cell tower identifiers into physical locations.
Get activation code will take you to register at My Cellebrite portal
Activate later
Get activation code

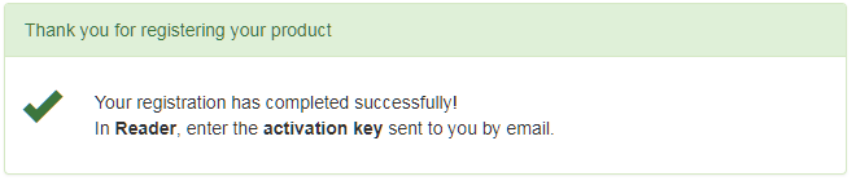
2. Under I am a new user, click **Get activation code**.

> If you do not have an Internet connection, complete this step on another computer with an Internet connection.

The following window appears.

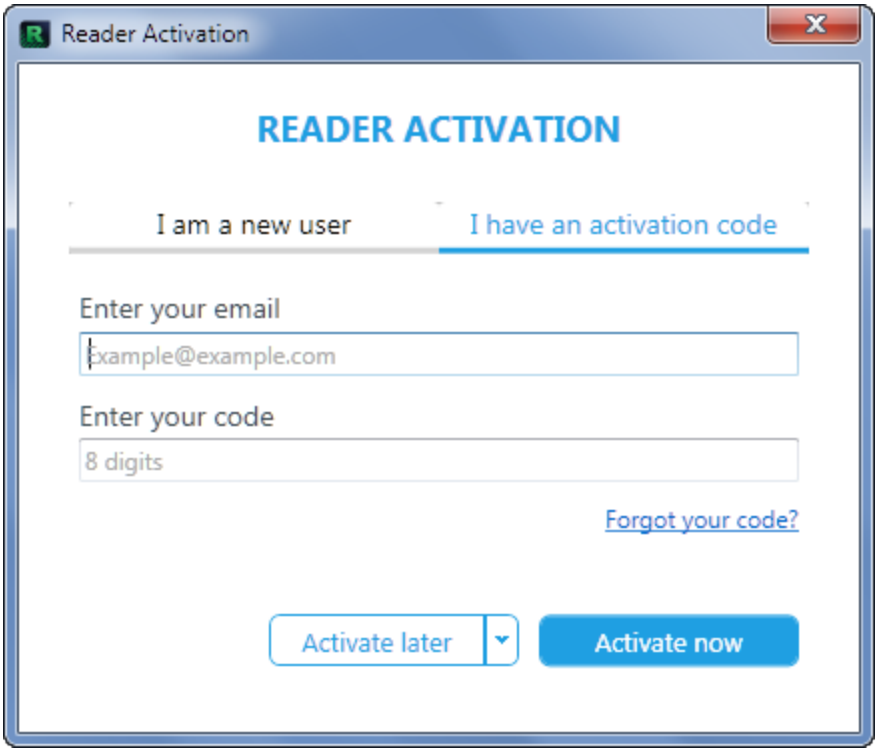


3. Complete the mandatory registration information, select **I'm not a robot** and **Terms of Use and Privacy policy**. Then click **Send me the activation key**. The following window appears.

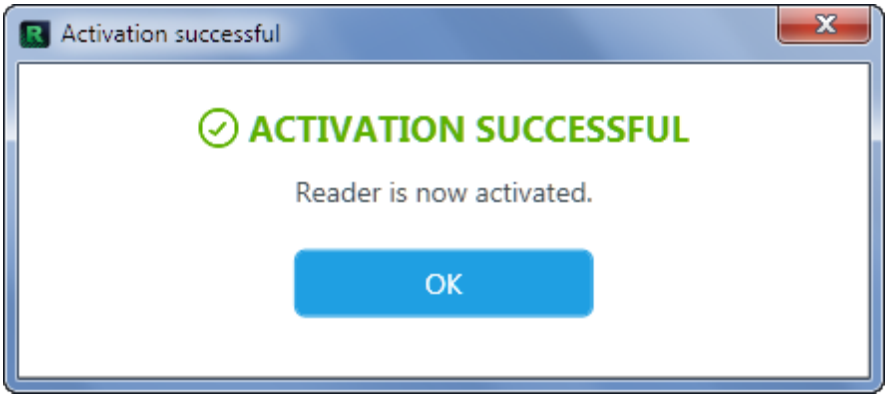

Thank you for registering your product
Your registration has completed successfully!
In **Reader**, enter the **activation key** sent to you by email.

4. Check your email for the activation code.

5. In the Activation window, click **I have an activation code** and then enter the email address you used to register and the activation code.



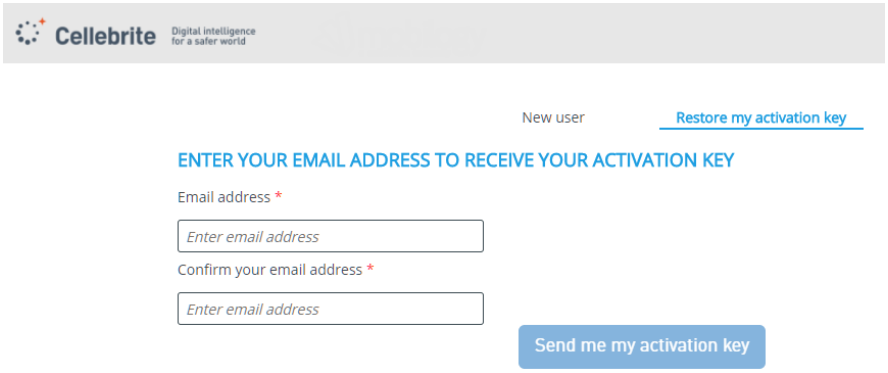
6. Click **Activate now**. The following window appears.



7. Click OK.

To restore your activation code:

1. In the Reader Activation window, click the **Forgot your code** link. The following window appears.


Cellebrite
Digital intelligence for a safer world
New user
Restore my activation key
ENTER YOUR EMAIL ADDRESS TO RECEIVE YOUR ACTIVATION KEY
Email address *
Enter email address
Confirm your email address *
Enter email address
Send me my activation key

2. Enter your email address that you used when you registered (or click **New user** to create a new user).
3. Click **Send me my activation key**. A confirmation email with your new activation key is sent.
4. Check your email for your activation key.

2.4. Opening a file for analysis

The Cellebrite Reader can open UFDR files.

1. Do one of the following:
   - Click **File > Open UFDR file**.
   - In the **Welcome** tab, click **Open**.
2. Browse to the location of the file and select it.
3. Click **Open**.

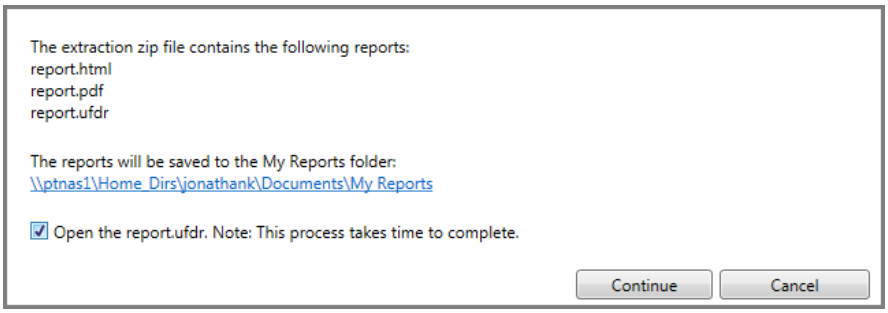
   The data analysis process begins and runs for several seconds. At the end of the process, the new project is added and the **Extraction summary** appears in the data display area.

2.5. Opening an encrypted zip file

Cellebrite Reader can open encrypted zip files created by Cellebrite Responder as well as other, non-Cellebrite formatted zip files. The zip file can contain HTML, PDF and UFDR report files. Only the UFDR file can be opened. To open an encrypted zip file, you must enter the password.

To open an encrypted zip file:

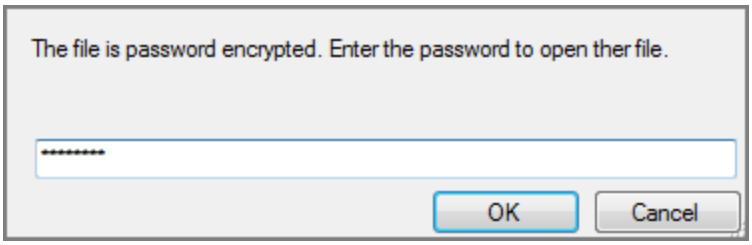
1. Open the extraction in Cellebrite Reader. The following window appears.



   The window indicates where the report files are saved.

2. To open **report.ufdr**, select **Open the report.ufdr**.

3. Click **Continue** to save the report files to the location indicated. The following window appears.



   You can change the location under **Settings** > **Report Defaults** > **Default folder**.

4. Click OK.

2.6. Saving a project session

Save the project session to save your work on the project, enabling you to close Cellebrite Reader and restart your session later.

The saved session file (.pas) includes:

- User selection in the **Analyzed Data** and **Data Files** tables
- Case Information settings
- Generated reports
- Location address
- Opened tabs
- Project name
- Project settings
- Report selection
- Searches
- Tags
- Translations
- Unified time zone settings
- User sorting in data tables
- Verifying hash values
- Watch list results

A project session can also be created for extractions performed by third-party tools.

Saved project sessions do not contain defined settings. For more information about saving your settings, see Exporting settings (on page 117).

To save a project session:

1. In the **File** menu, select **Save project session**. The Save As dialog box appears.
2. Browse to the location where you want to save the project session file.
3. To change the file name, edit the automatically assigned name in the **File name** field.

   To overwrite an earlier session, choose the same file name.
4. Click **Save**.

2.7. Adding external files to a case

You can include related artifacts in your case. These are external files such as search warrants, additional images, and relevant documents. These files are added to the project tree, under Additional files and can be included in reports.

To add external files to the report:

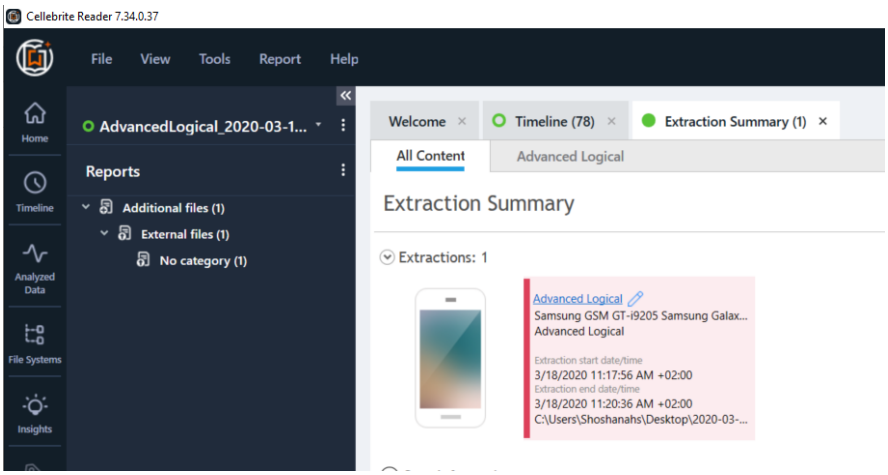
1. Do one of the following:
   - Click **Add external files** in the Extraction Summary.
   - Click next to the project and select **Add external file**.
2. Select the file. The following window appears.

Additional files
Add external files such as search warrants, additional images and relevant documents to your case.
These files will be added to the project tree, under "Additional files" and can be included in reports.
File name
Agency form
Category
No category
Note
Note
Agency form
Cancel
Add to project

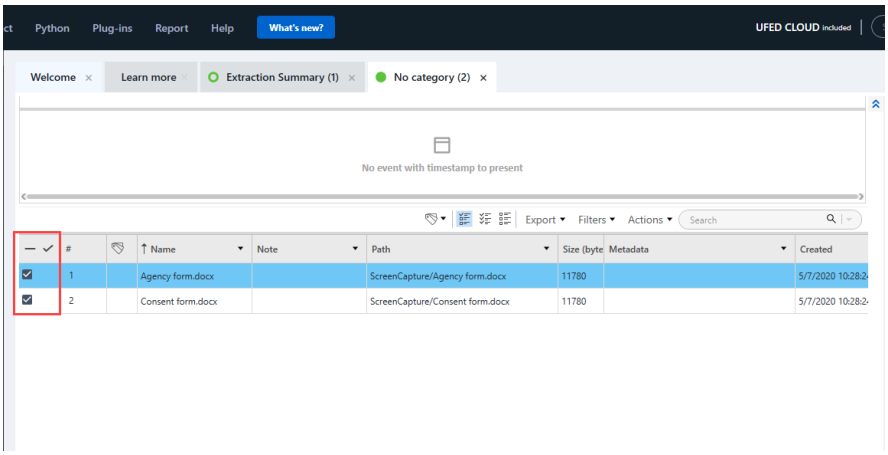
3. Enter a name for the file.
4. Enter or select a category.
5. (Optional) Enter any notes.

> For images, you can use the drawing tool on the left to draw text, add shapes, crop, resize, rotate, and flip the image. You can also copy the image to the Clipboard.

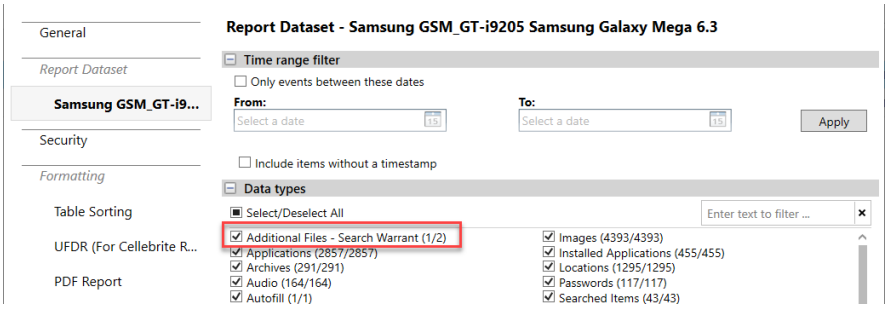
6. Click **Add to project** and select the project. The file is in **Reports > Additional files > External files**.



7. Open the files from here and select or clear the checkbox to include or exclude files from the report.



8. When generating a report select **Additional Files**.



2.8. Loading a project session

1. From the **Welcome** tab, open the project that you want to work in.
2. In the **File** menu, select **Load project session**.
3. In the Open dialog box, browse to and select the project session file that you want to open.
4. Click **Open**. The session opens.

2.9. Closing Cellebrite Reader

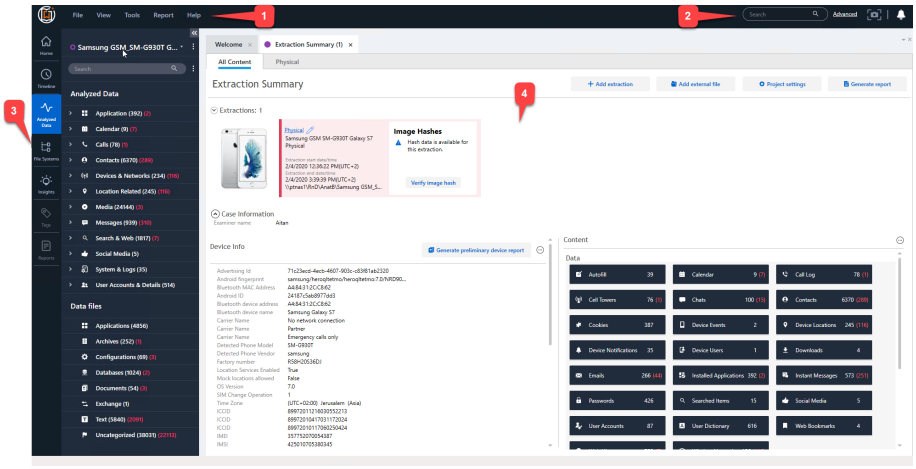
» In the **File** menu, select **Exit**.

2.10. Keyboard shortcuts

Ctrl+B	Add an entity bookmark
Ctrl+End	Move the cursor to the end of a table
Ctrl+Home	Move the cursor to the beginning of a table
Ctrl+O	Open a UFDR file
Ctrl+P	Open project settings
Ctrl+R	Open the report wizard
Ctrl+T	Open settings
Ctrl+Tab	Switch between open tabs
Ctrl+W	Close a project
F1	Open the product documentation
Space	Select or clear checkboxes
Ctrl+F6	Redact images or videos

3. Orientation to the workspace

The workspace contains two main areas; the project tree and the data display area to streamline your workflow.



The workspace contains the following components:

1. Application menu bar
2. All projects search
3. Navigation menu
4. Data display area

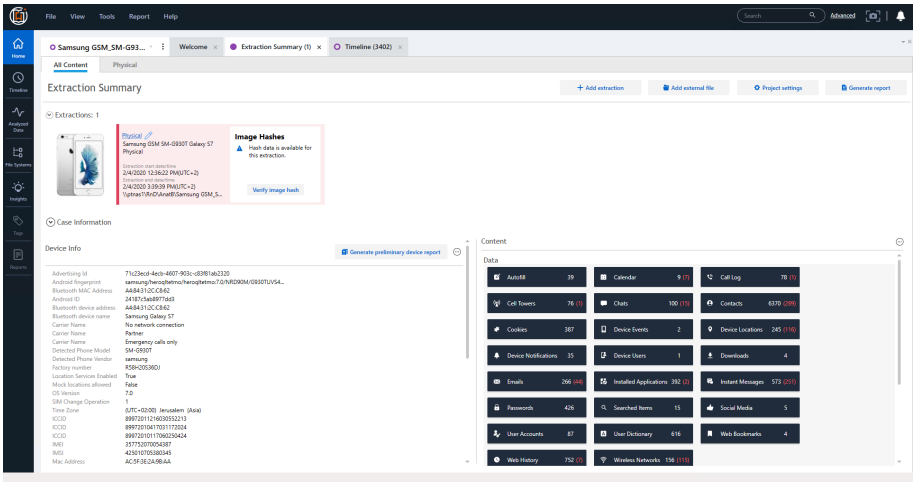
3.1. Navigation menu

Navigate the Cellebrite Reader application views from the following navigation menu items:

- Home
- Timeline
- Analyzed data
- File Systems
- Insights
- Tags
- Reports

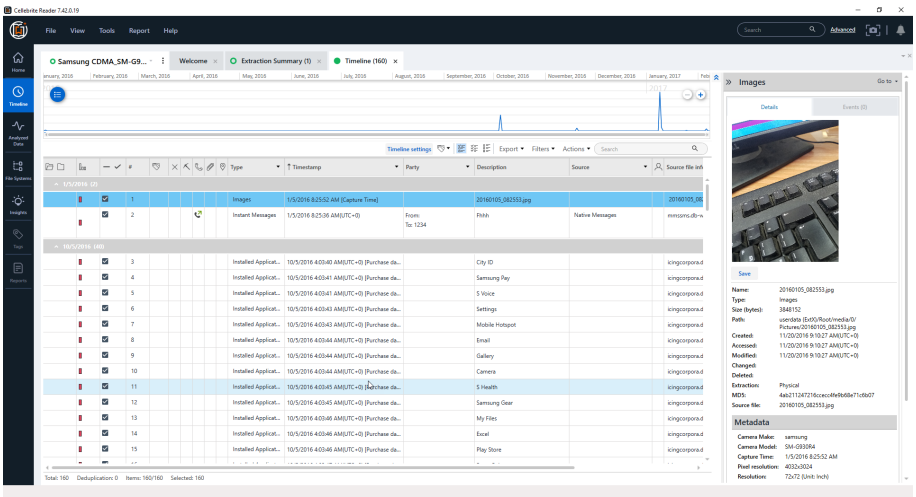
3.1.1. Home

The Home view displays the Extraction summary. See File system “Partial Extraction” from UFED - Reason (on page 35).



3.1.2. Timeline

Timeline view is a powerful tool that enables you to analyze data in chronological order, to identify the order of events and make connections between them.



Filtering and sorting the timeline table

The timeline has many advanced filtering and sorting options to drill down to specific data and display them according to the users requirements.

Filter by Type, Timestamp, Party, Description, Source, Source file information, and Extraction.

To filter the timeline:

1. Click the dropdown icon in a column heading.
2. Select the filter options
3. Click **Ok**.

To clear applied filters, click **Clear filters**.

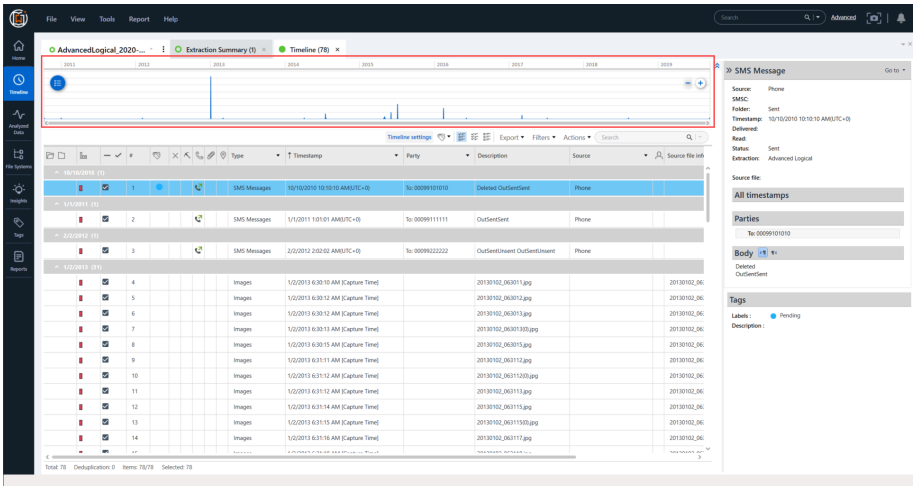
Sorting the timeline table

Sort the timeline table by Type, Time stamp, or Extraction.

1. Click the dropdown icon in a column heading.
2. Select either:
   - **Sort ascending**
   - **Sort descending**

The graphical timebar

The graphical timebar allows you to zoom-in to the timeframe in question as well as analyze multiple timestamps of events.



To select a specific timeframe in the graphical timebar:

1. Click and drag on the timebar to select a timeframe.
2. Click **Apply**.

   The table is updated to reflect the selected timeframe.

To apply fields to the graphical timebar:

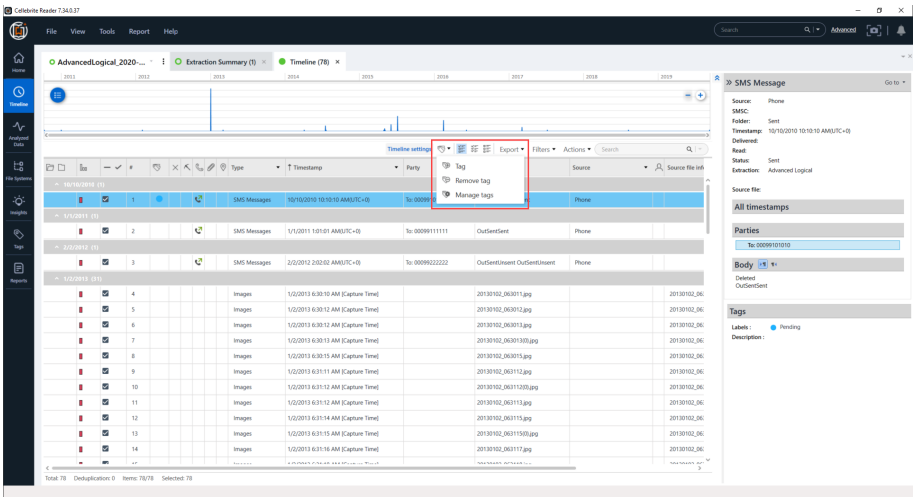
1. Click to open the fields selection window.
2. Select the required fields.
3. Click **Apply**.

To zoom in the graphical timebar click . To zoom out, click .

To clear timebar settings, click **Clear**.

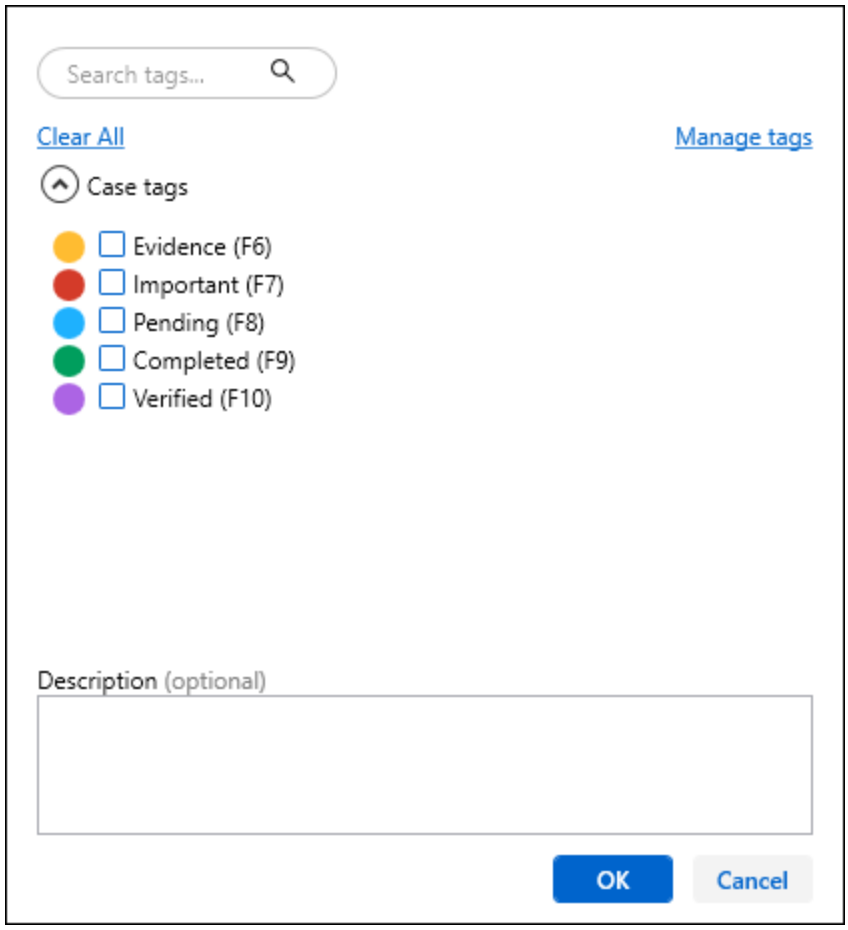
Tagging items on the timeline

Tag timeline items for easier data management.



To add a tag to timeline items:

1. Select one or more row in the timeline table.
2. Click .
3. Select **Tag**.
4. Select the required tags.



5. Click **OK**.

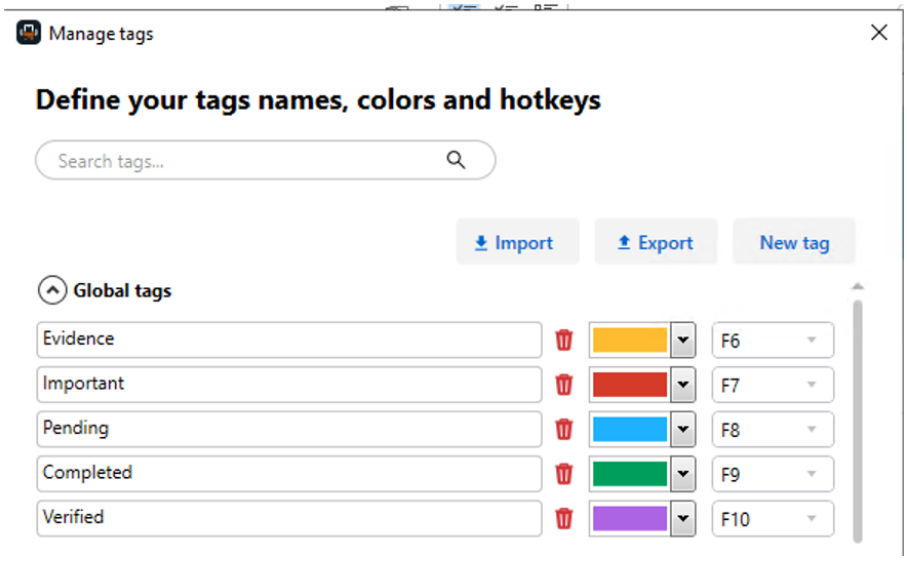
The Tags column is updated with the selected tabs.

To manage tags:

1. Click .
2. Select **Manage tags** .
3. In the Manage tags window you can:
   - Search tags.
   - Rename existing tags.
   - Delete tags.
   - Define tag color.

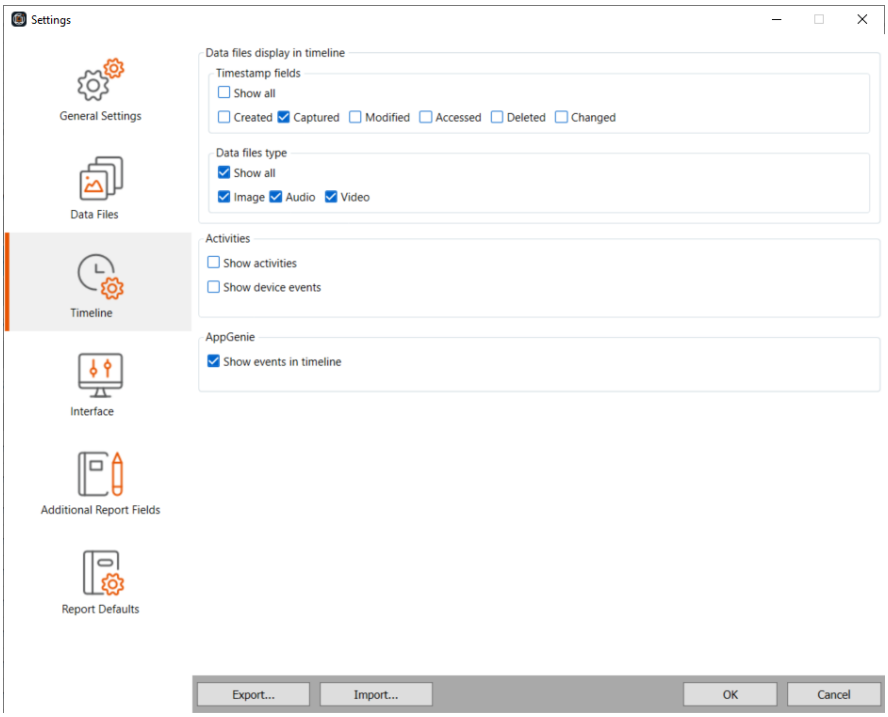
- Define tag hotkey.
- Create a new tag by clicking **New tag**.
- Import and Export list of tag labels.

4. Click Ok.



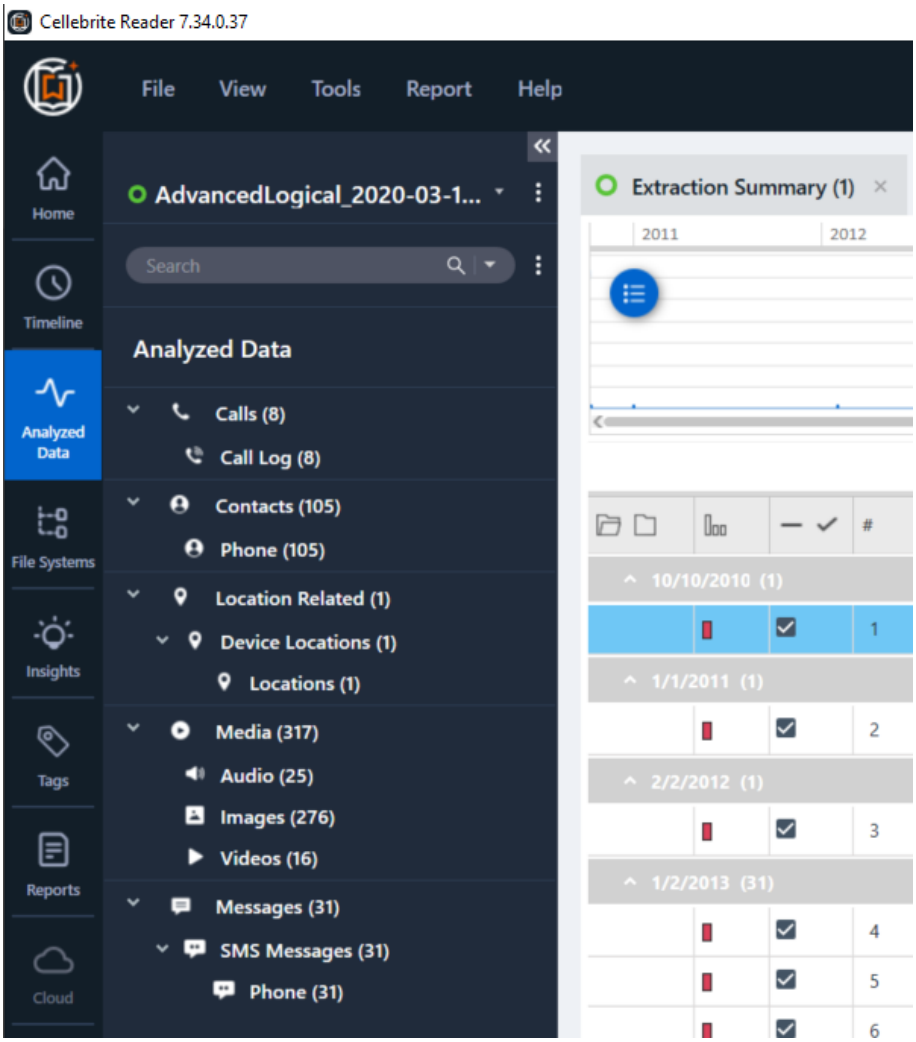
Managing timeline settings

1. Click **Timeline settings**.
2. Select required settings.
3. Click **Ok**.



3.1.3. Analyzed data

The **Analyzed Data** view displays a tree with groups of analyzed data that are related to device-specific features such as contacts, SMS messages, call logs, and so on.



The available information and what is displayed depends on the device features and application version. For example, SMS messages are sorted according to the folders used by the messaging feature of the device, such as Drafts, Inbox, Outbox, Sent, and so on. Email messages are sorted according to the account through which they were sent or received. An uncategorized account or messages folder lists the folders or messages that cannot be categorized in any of the found accounts or account folders (Inbox, Outbox, Drafts, and so on).

The following information types is displayed in the Analyzed data tree:

Analyzed Data

- **Personal information**: Calendar, contacts, notes, call log, user dictionaries, user accounts.
- **Messaging items**: SMS, MMS, email, instant messages, chat.
- **Web browser items**: Bookmarks, history, cookies.

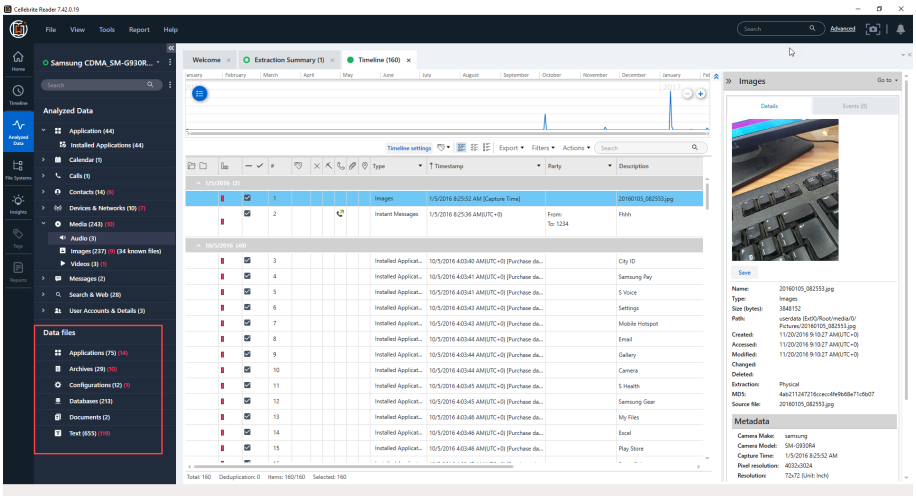
- **Media items**: Audio, images, and videos.
- **GPS information**: Locations (including from video files, metadata, and SQLite databases), journeys, fixes. For more information about geolocations.
- **Device information**: Bluetooth pairings, wireless networks, SIM data, application usage, Wi-Fi, cellular locations.

The number in parenthesis designates the number of items each category contains.

Selecting any analyzed data category automatically adds it to the highlights list of the displayed binary image and memory range it belongs to (located at the bottom of the Hex view tab), and highlights its data range portions in the displayed data.

Data files

The Data Files tree item sorts the extracted data into common formats, used by devices and computers, such as text or document files.



In the project tree, the information is displayed in the following categories:

- **Applications**: Files that were recognized as application files (such as .apk, .jar, .dex, .so, .exe)
- **Archives**: Files that were recognized as archive or compressed files (such as .zip, .zipx, .rar, .tar, .gzip, .7zip, .7z, .dar, .gz, .arj)
- **Configurations**: Device configuration files (such as iOS plist files)
- **Databases**: Data structures that were recognized as databases
- **Documents**: Files that were recognized as document file formats (such as .doc, .docx, pdf; xlsx, ppt).
- **Shortcuts**:
- **Text**: Files that were recognized as text file formats
- **Uncategorized**: All unknown file formats or undefined file extensions.

Deleted items are indicated in red.

Double-clicking on a tree item opens a tab in the data display area.

Expand or collapse tree items by clicking and selecting **Expand all** or **Collapse all**.

3.1.4. File systems

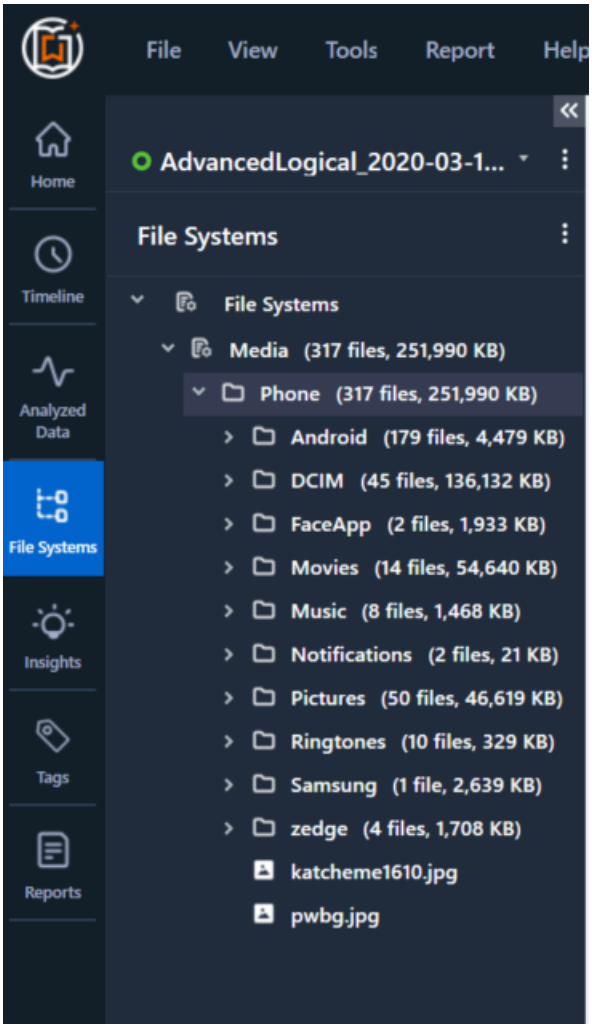
The File systems view displays a tree with the following data:

- Memory images: Double-click an image item to display it in a Hex View tab in the data display area.

  The **Memory Images**: tree item lists all the extraction files generated from the memory modules of the device.
- Memory Ranges: lists the analyzed memory ranges for each of the extracted memory modules of the device (listed under **Images**).

  Select a memory range to:
  - Highlight the memory range portion in the displayed data
  - Add it to the highlights list of the displayed binary image it belongs to (located at the bottom of the Hex view tab).

    Double-click a memory range item to display its content in a new Hex view tab.
- File systems: file systems found or reconstructed out of the analyzed binary file.



The **File Systems** tree displays all the file systems found or reconstructed out of the analyzed binary file.

Each file system is marked with (hard drive icon). Deleted files are marked with (red cross icon).

Double-click any file system item to display its content in a new tab.

Double-clicking on a tree item opens a tab in the data display area.

Expand or collapse tree items by clicking ⋮ and selecting **Expand all** or **Collapse all**.

3.1.5. Insights

The Insights view displays a tree with the following information:

- Media classifications - Media classification results. See Media classification .
- Watch lists - Watch lists are lists of keywords that you create and then use to search and identify events and items of interest in the extracted data.
  - Expand **Watch Lists** to view a list of watch lists that have been run in the current session.
  - Double-click **Watch Lists** to view the highlighted entity based on the watch lists.
- Hash sets
- Malware scanner - Run the malware scanner to identify malware on the device.
- Cryptocurrency - If cryptocurrency analyzer was run on the case, results are displayed here. See Cryptocurrency analyzer .

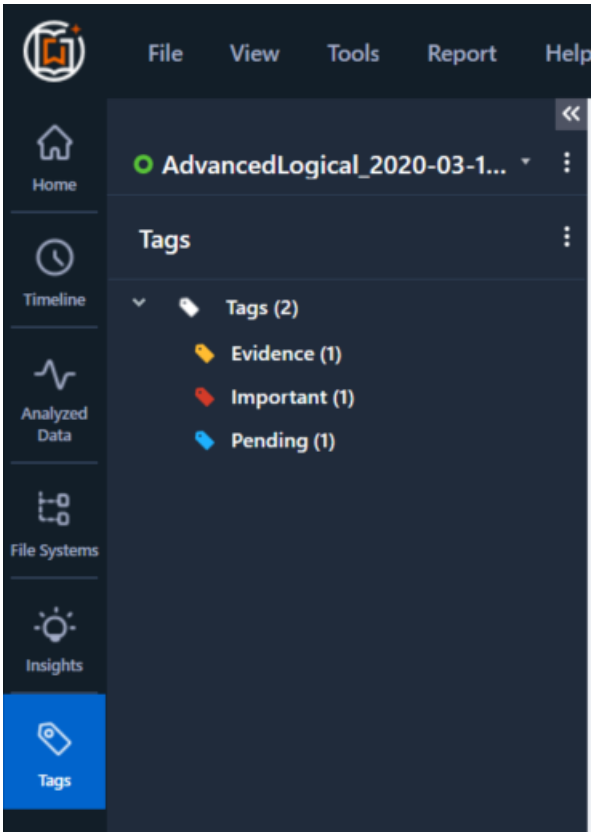
Double-clicking on a tree item opens a tab in the data display area.

Expand or collapse tree items by clicking ⋮ and selecting **Expand all** or **Collapse all**.

3.1.6. Tags

The Tags view displays a tree with defined project tags.

Double-click on a tag in the tree to open a tab with details in the data display area



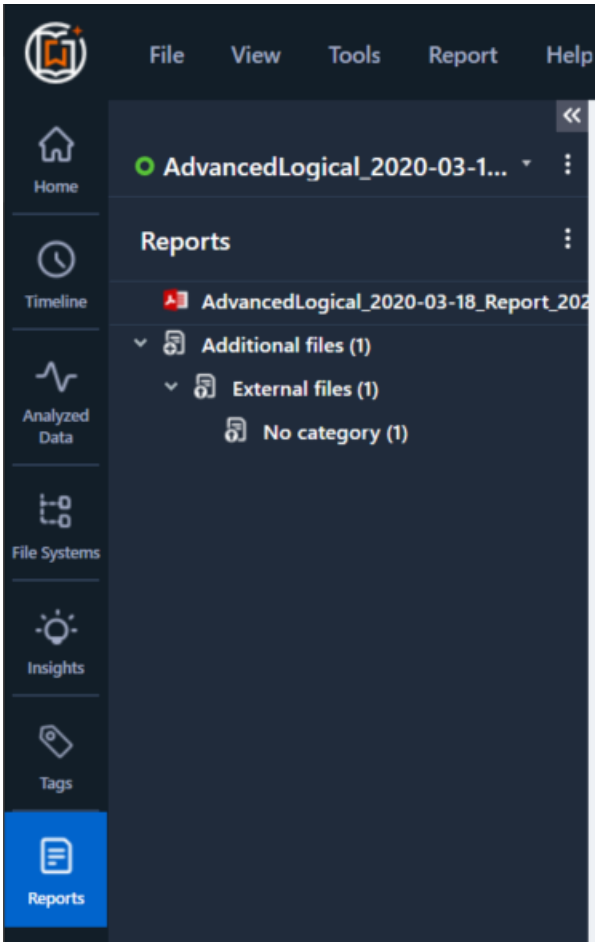
Double-clicking on a tree item opens a tab in the data display area.

Expand or collapse tree items by clicking ⋮ and selecting **Expand all** or **Collapse all**.

3.1.7. Reports

The Reports view displays a list of generated reports. See Generating a report (on page 90).

1. Double-click on a report to open it. The report opens in the application associated with the report format.



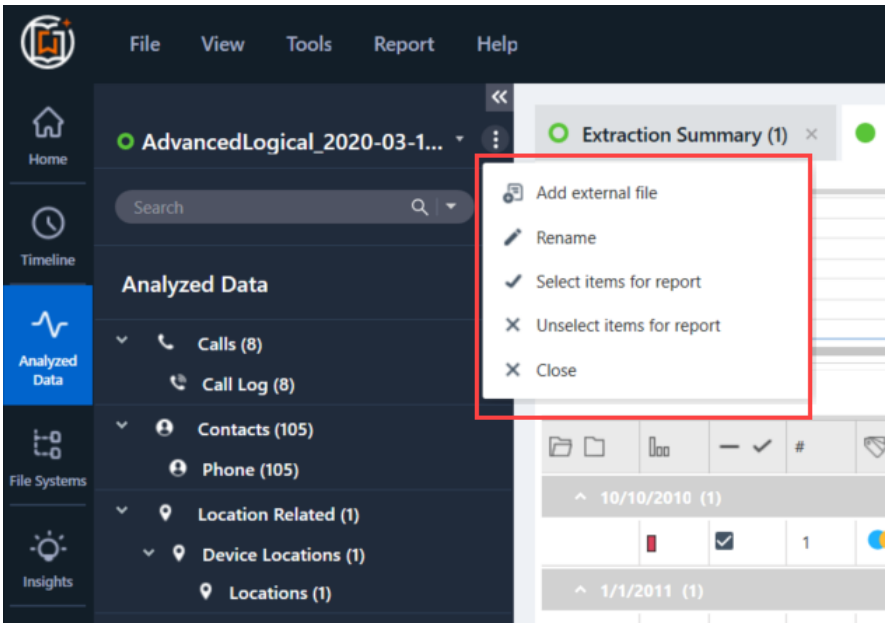
3.1.8. Managing project actions

The project menu allows you to perform the following actions:

- Add external file
- Rename
- Select items for report
- Clear items from report
- Close

Procedure:

1. Click the menu icon next to the project name.
2. Select the required menu item.

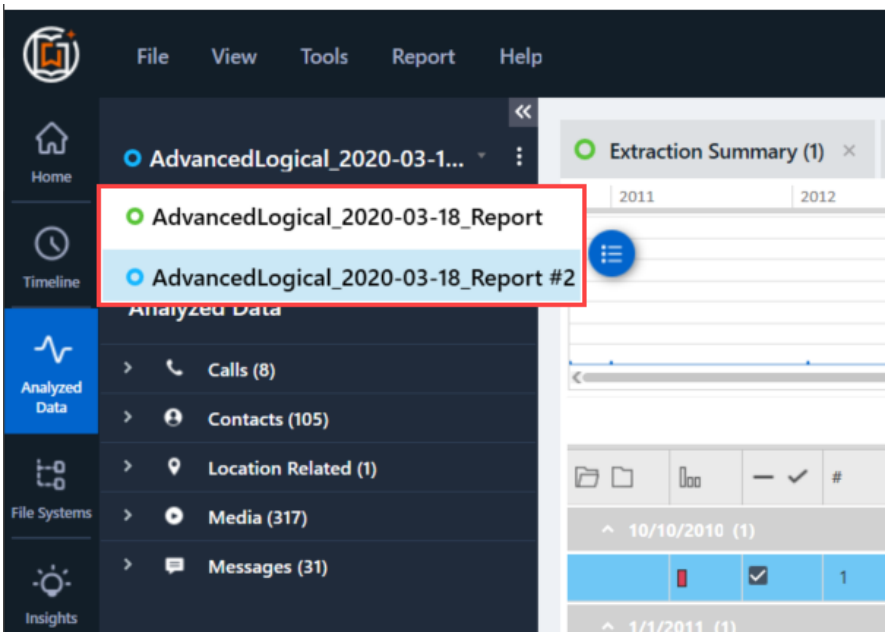


3.1.9. Viewing extraction data from multiple projects

When there are multiple projects open in Cellebrite Reader, you can switch between projects to view the data.

1. Click the dropdown icon next to the project name.
2. Select a project.

   The view displays the extraction data for the selected project.



3.2. Data display area

Double-click an item to display it in a tab. A new tab is opened for each item. There are three tab types:

- **Welcome** tab
- **Extraction Summary** tab
- Data tabs, with subtabs that present a particular view, depending on the data

The data display area also displays additional windows such as the Trace window and Timeline view.

To close a tab

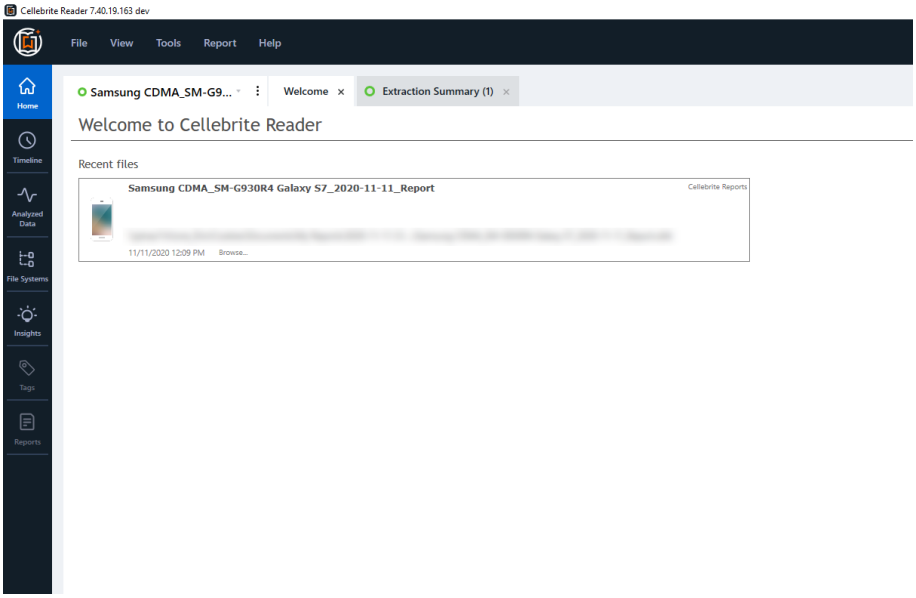
- Do one of the following:
  - Click ✕ on the tab header.
  - Click ✕ at the top right of the data display area.

To jump to a specific tab

- At the top right of the data display area, click ▾ and select the desired tab from the open tabs list.

3.2.1. Welcome tab

The **Welcome** tab is automatically displayed in the data display area when the application starts and displays a list of recently opened files.



Each file in the list is displayed as a framed information group that contains the following items:

- **Device picture**: A thumbnail image of the device from the application resources, if available. When unavailable, a general placeholder image is used.
- **File name**: The name of the opened file, without the file extension.
- **File path**: The file system path to the file location.
- **Device model**: The identified device manufacturer and model, or BINARY if the opened file was a binary extraction.
- **Date and time**: The date and time stamp in which the file was last opened.
- **Browse link**: A direct link to the file in the system.

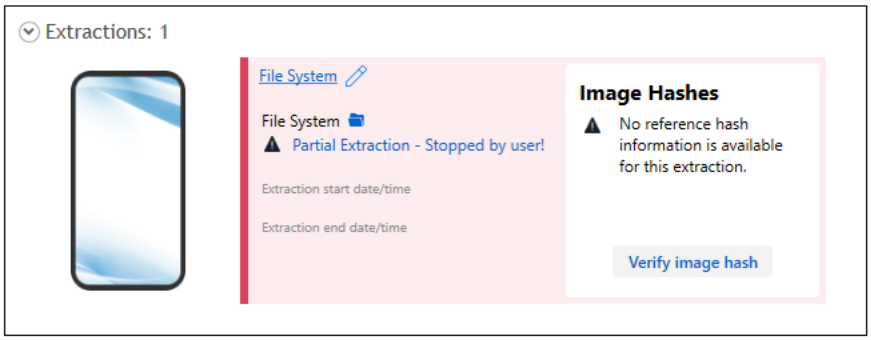
To remove an item from the Welcome tab, click .

You can do the following:

- Click on a framed item to open the files for decoding.
- Click **Browse** to go directly to the file associated with it in the file system.
- Close the **Welcome** tab. To reopen it, go to **View** > **Welcome Screen**.

File system "Partial Extraction" from UFED - Reason

Physical Analyzer now displays the reason for a partial extraction in the Extract Summary area (for example, user stops the extraction before it completes).



3.2.1.1. All Content tab

The All Content tab includes the following information:

Extractions (on the next page)

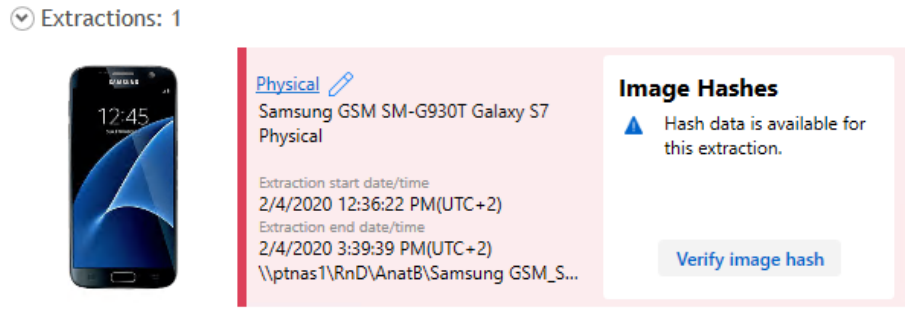
Case Information (on page 37)

Device Info (on page 38)

Device Content (on page 39)

3.2.1.1.1. Extractions

This section includes information related to the device extractions.



Single extraction

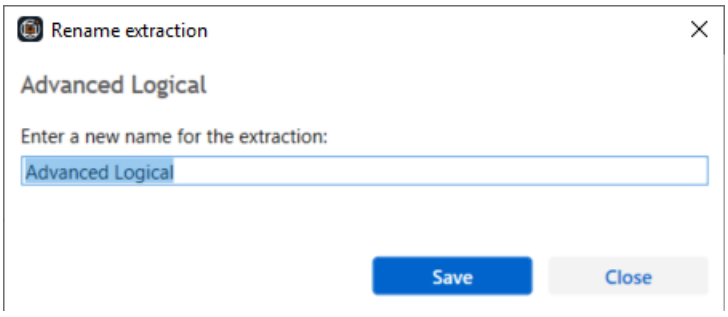
Project with multiple extractions

The Extractions area includes the information listed in the following table.

Extraction link	Link to the extraction tab.
Device model	Detected model e.g., MB717, Samsung GT-I9205.
Type of extraction	Type of extraction performed e.g., Physical (Bootloader).
Extraction start date/time *Extraction end date/time*	When the extraction started and ended.
Path to the extraction file	The location of the extraction file.

To rename an extraction:

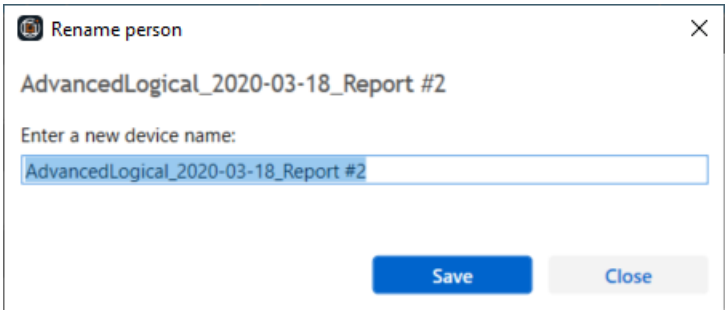
1. Click the Edit button ( ) or select the extraction name in the project tree, right-click and then select **Rename**. The following window appears.



2. Enter a new name for the extraction and then click **Save**.

To rename a project:

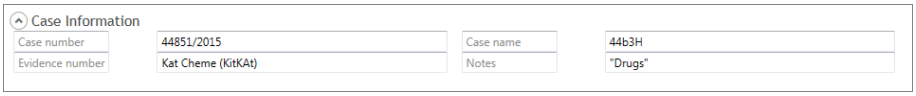
1. Select the project name in the project tree.
2. Right-click and then select **Rename**. The following window appears.



3. Enter the required name for the project.
4. Click **Save**.

3.2.1.1.2. Case Information

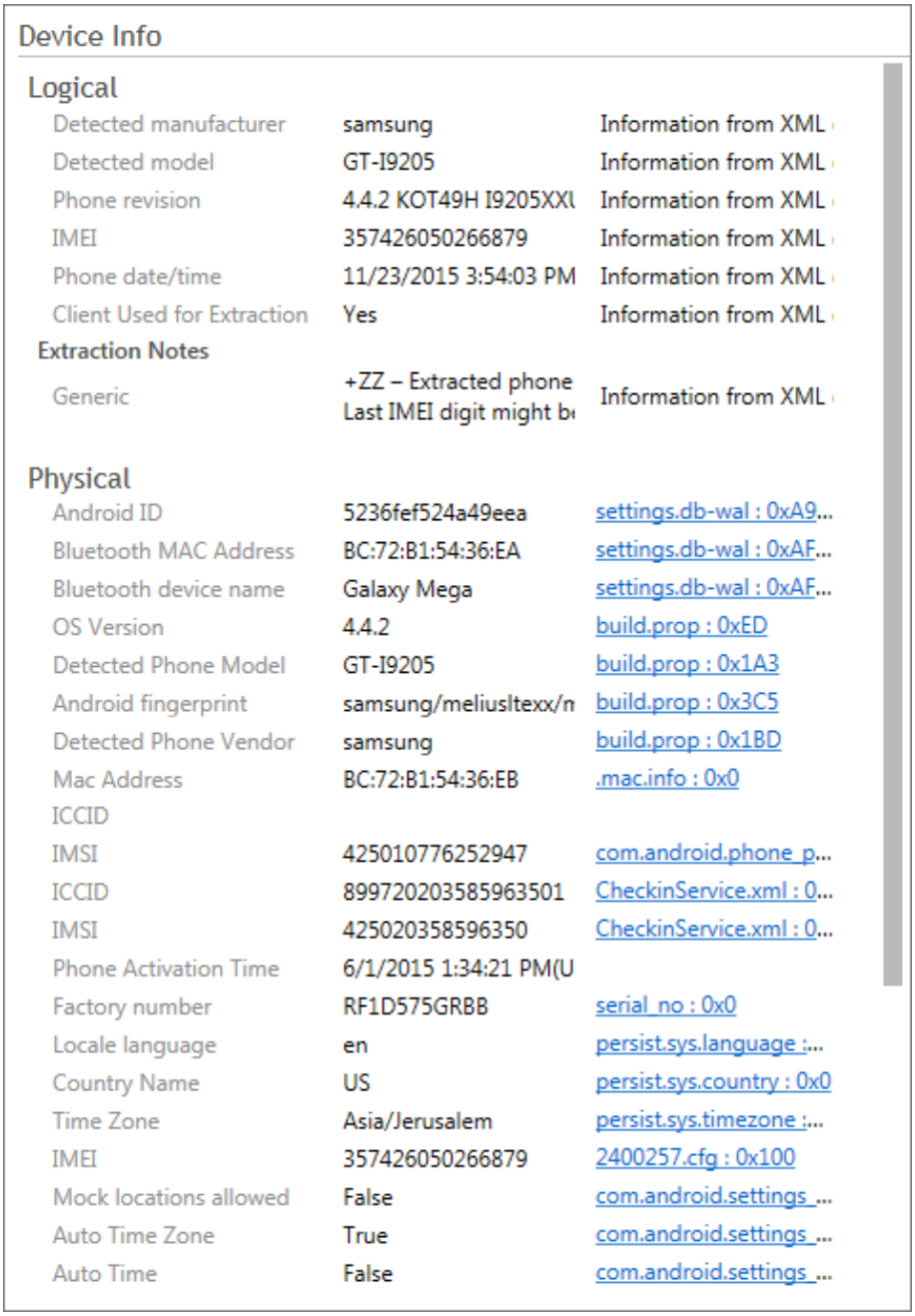
This section includes the case information, which is taken from the **Project settings** > **Case Information**.



3.2.1.1.3. Device Info

This section displays a summary of the specific device information taken from the extraction file.

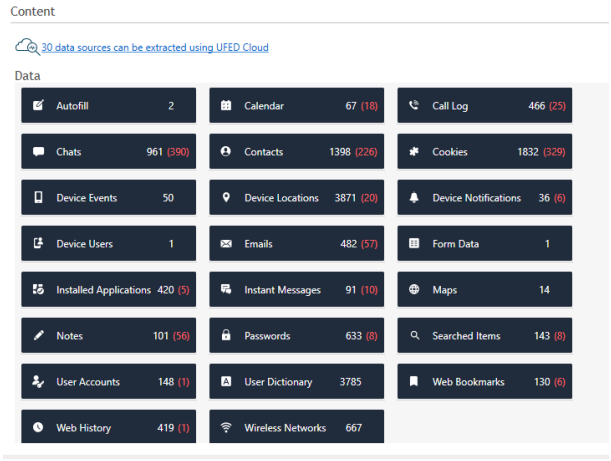
The following example shows device information for a project with multiple extractions.


Device Info
Logical
Detected manufacturer samsung Information from XML
Detected model GT-I9205 Information from XML
Phone revision 4.4.2 KOT49H I9205XXU Information from XML
IMEI 357426050266879 Information from XML
Phone date/time 11/23/2015 3:54:03 PM Information from XML
Client Used for Extraction Yes Information from XML
Extraction Notes
Generic +ZZ – Extracted phone Last IMEI digit might b Information from XML
Physical
Android ID 5236fef524a49eea settings.db-wal : 0xA9...
Bluetooth MAC Address BC:72:B1:54:36:EA settings.db-wal : 0xAF...
Bluetooth device name Galaxy Mega settings.db-wal : 0xAF...
OS Version 4.4.2 build.prop : 0xED
Detected Phone Model GT-I9205 build.prop : 0x1A3
Android fingerprint samsung/meliusltexx/n build.prop : 0x3C5
Detected Phone Vendor samsung build.prop : 0x1BD
Mac Address BC:72:B1:54:36:EB .mac.info : 0x0
ICCID
IMSI 425010776252947 com.android.phone_p...
ICCID 899720203585963501 CheckinService.xml : 0...
IMSI 425020358596350 CheckinService.xml : 0...
Phone Activation Time 6/1/2015 1:34:21 PM(U
Factory number RF1D575GRBB serial_no : 0x0
Locale language en persist.sys.language :...
Country Name US persist.sys.country : 0x0
Time Zone Asia/Jerusalem persist.sys.timezone :...
IMEI 357426050266879 2400257.cfg : 0x100
Mock locations allowed False com.android.settings_...
Auto Time Zone True com.android.settings_...
Auto Time False com.android.settings_...

3.2.1.1.4. Device Content

This section includes the analyzed content, which is divided into the following categories:

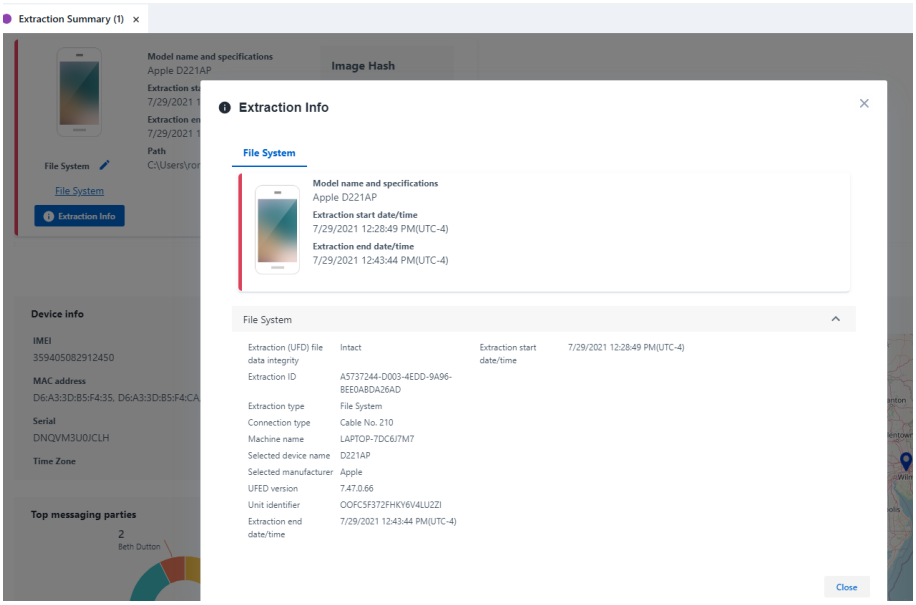
- **Phone Data**: The types of analyzed device data found in the extraction, such as call logs, contacts, instant messages, and so on.
- **Data Files**: The types of standard data files found in the extraction, such as applications, audio, configurations, images, videos, text files, and uncategorized.
- **Camera Evidence**: Pictures or videos of a device.
- **Phone Evidence**: Screenshots of the device.



The number in white indicates the total number of items and the number in red (in parenthesis) indicates that the item was found in deleted data.

3.2.1.2. Extraction Info

Extraction info is displayed within each Extraction summary tab. It displays extraction information such as when the extraction was performed, by which Cellebrite UFED unit, and which cable was used.



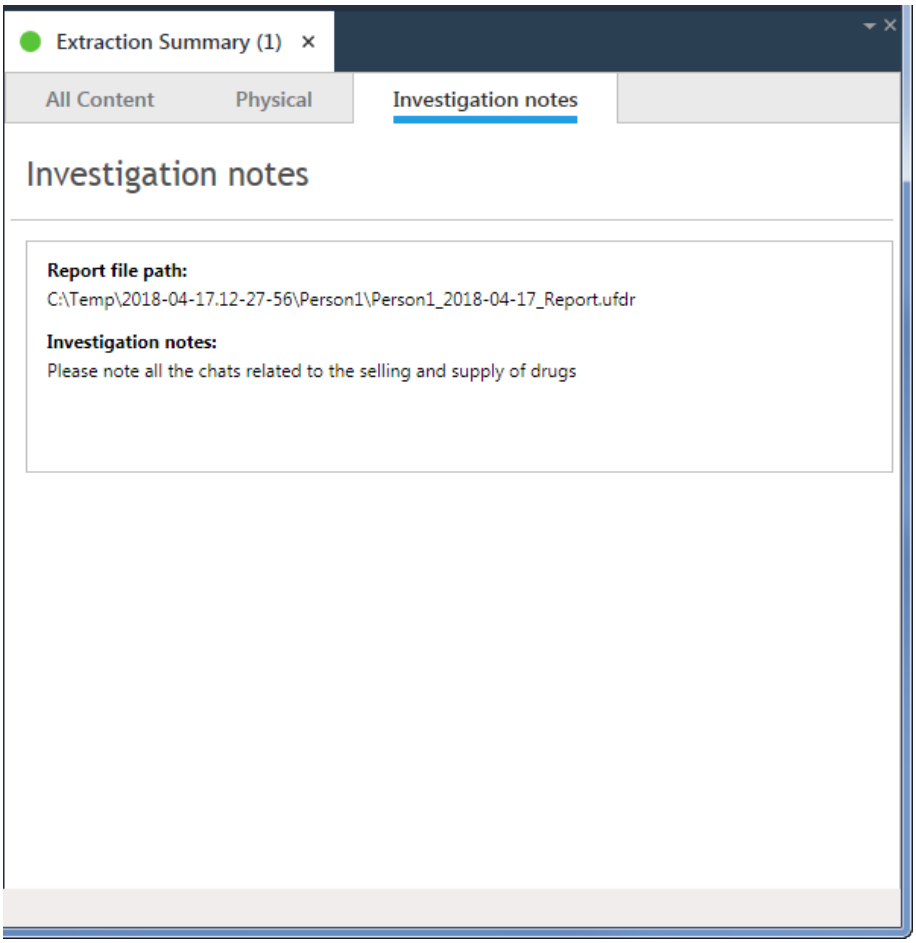
Extraction information is listed in the following table.

Extraction start date/time *Extraction end date/time*	When the extraction started and ended.
Unit Identifier	The serial number of the device that performed the extraction (e.g., Cellebrite UFED Touch), or a unique ID if the extraction was performed by a PC application (e.g., Cellebrite UFED).
Unit Version	Cellebrite UFED software version (e.g., 4.1.0.220)
Selected Manufacturer	Manufacturer of the device (e.g., Apple)
Selected Device Name	Device name (e.g., iPhone 4)
Connection Type	Cable used for the extraction (e.g., Cable No. 100)
Extraction Type	Type of extraction performed (e.g., File system)
Extraction ID	Unique ID for each extraction type
Extraction (UFD) file data integrity	Corruption check status (e.g., Intact, Corrupt, Not Available)

To display the relevant information in a new tab in the data display area, click any of the tree items.

3.2.1.3. Investigation notes tab

If the UFDR file includes notes that were added when the file was created, they are displayed in the **Investigation notes** tab under the Extraction Summary. For each UFDR report, the report file path is also indicated.



3.2.2. Data tabs

Data tabs show files of a specific type (such as call log, contacts, SMS messages, and so on).

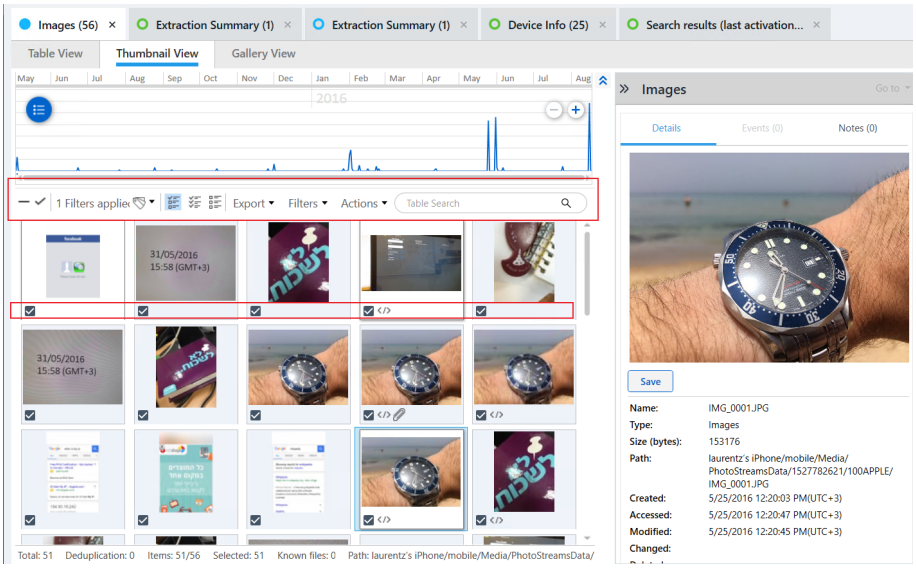
Data in data tabs display the data in a variety of subtabs, depending on the type of data:

- **Text view**: View text files as text.
- **Table view**: a list of all the files of a specific type (images, videos, audio, text, and so on) that were found during the data analysis process.
- **Thumbnail view**: view images by thumbnail (for images only).
- **Folder view**: view the folder structure of the data files paths in the reconstructed file system (for data files only).
- **Image view**: view the image. See Viewing image files (on page 59).
- **File Info**: view information about the file.

3.2.2.1. Working in data tabs

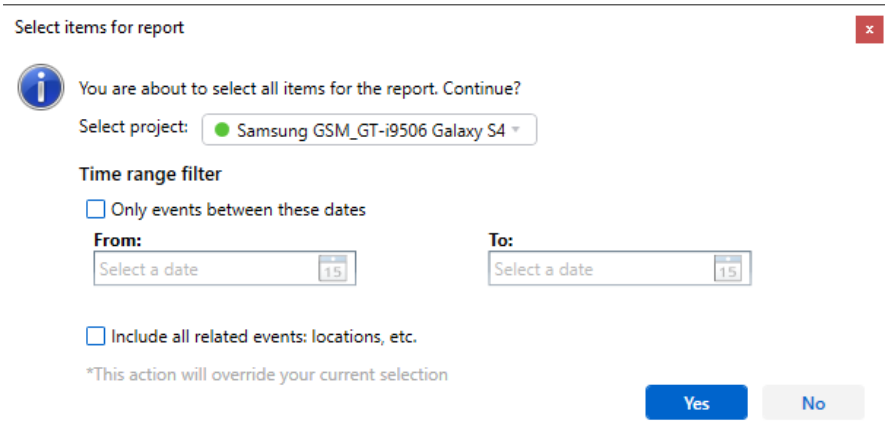
Selecting items

Select items in the data display area to include them in any report you generate. By default, all items are selected.



- To select multiple items, hold the SHIFT or CTRL keys (consecutive and nonconsecutive selection).
- When an item is selected, press the space bar to select or clear the checkbox, which indicates if the item is included or excluded from the report.
- To select all items, click ✔ in the column header (table view, thumbnail view, and timeline).
- To select items and include a timeframe:

1. Click ⋮ and select **Select items for report**.



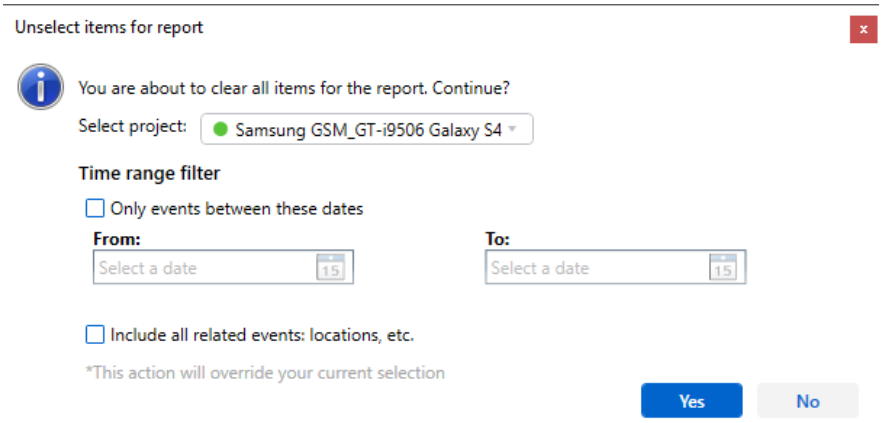
2. To select all, click **Yes**.
3. To set a timeframe for selection:
   a. Select **Only events between these dates**.
   b. Select the **From** and **To** dates.
   c. Click **Yes**.

> To include related events select **Include all related events: locations, etc**. This action overrides the current selection.

Clearing items

Clear items in the data display area to exclude them from any report you generate.

» To clear all items, click — in the column header (table view, thumbnail view, and timeline).



» To clear items:

1. Click ⋮ and select **Unselect items for report**.
2. To clear all, click **Yes**.
3. To set a timeframe to clear items:
   a. Select **Only events between these dates**.
   b. Select the **From** and **To** dates.
   c. Click **Yes**.

Sorting columns

Sort each column alphabetically or by time.

- Click the column header to toggle the order.

Re-ordering the columns

For your convenience, you can change the order of the columns. Your preference is retained for the duration of the session.

- Drag the desired column to the desired location.

Hide or show columns

- Right-click the column header and select the column name in the list.

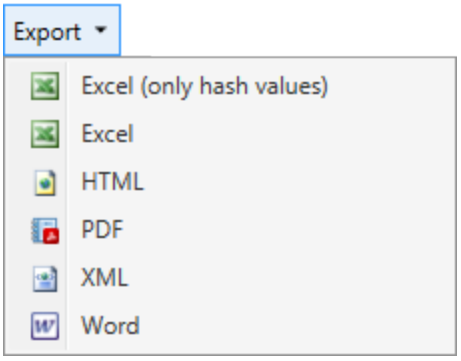
Viewing more information

For data tabs containing textual information, by default the right pane is open, displaying the selected item's information.

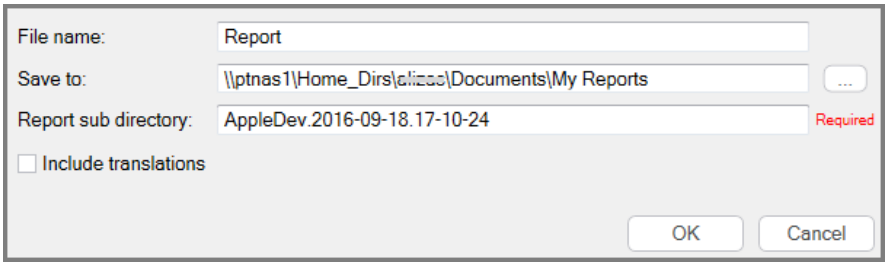
- To close or open the right pane, click .

Exporting data

1. To export the data in a particular tab, click the desired output in the toolbar: Excel, HTML, PDF, XML, KML (location data only), or EML (email data only).



The Export Dialog Window appears.



2. Do one of the following:
   - Enter the path where you want to save the report.
   - Click ... and browse to and select the desired location.
3. Select **Include translations** to include translated data.
4. Click **OK**.

   The report is generated and a message appears asking if you would like to open it in third-party software.
5. Click **Yes** or **No**.

   The file is opened in the default third-party software.

> When exporting to EML, a file is created for each email.

3.2.2.2. Table view for data files

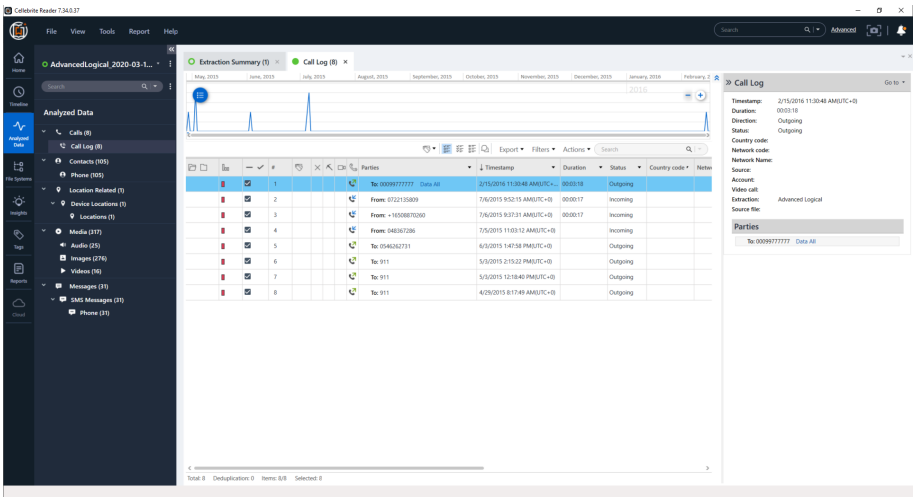
For data files, the table shows the information listed in the following table.

checkbox	Indicates whether to include (selected) or exclude (cleared) the item in the report generated.
Del?	An icon indicating if the data file was deleted or has an unknown status (gray dot).
Image	A thumbnail of the image or an icon of the file type.
Name	The file name.
Path	The root path of the data file.
Size	The size of file.
Metadata	Additional metadata of the data file.
Created	The creation time stamp of the data file.
Modified	The modification time stamp of the data file.
Accessed	The last access time stamp of the data file.

In addition, indicators are displayed to show attachments, indicate video calls, and to show even direction.

3.2.2.3. Table view for analyzed data

For analyzed data, table view tabs display a list of all the events of a specific type (Call Log, Contacts, Instant messages, and so on) that were found during the data analysis process.

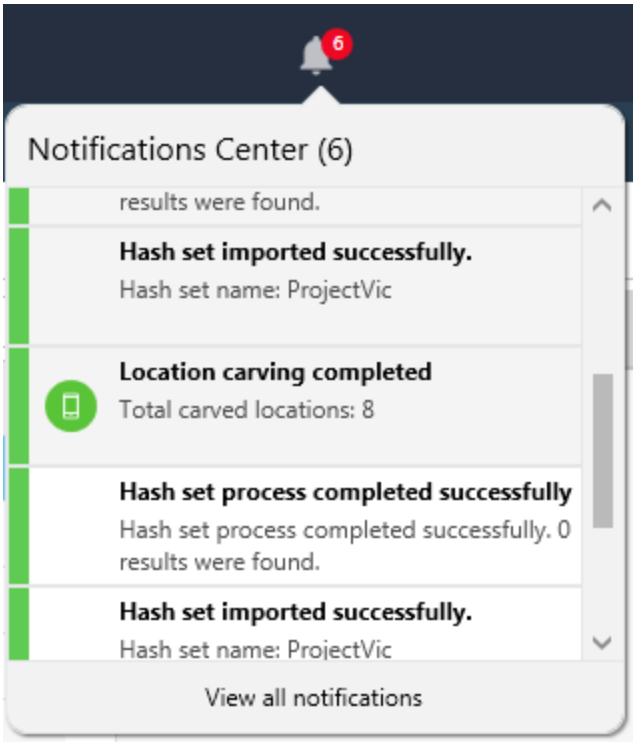


3.2.3. Notifications center

The Notifications center keeps you up to date with the latest features and capabilities of Cellebrite Reader. In the Notifications center, you can view the latest alerts, news, warnings, and completed actions.

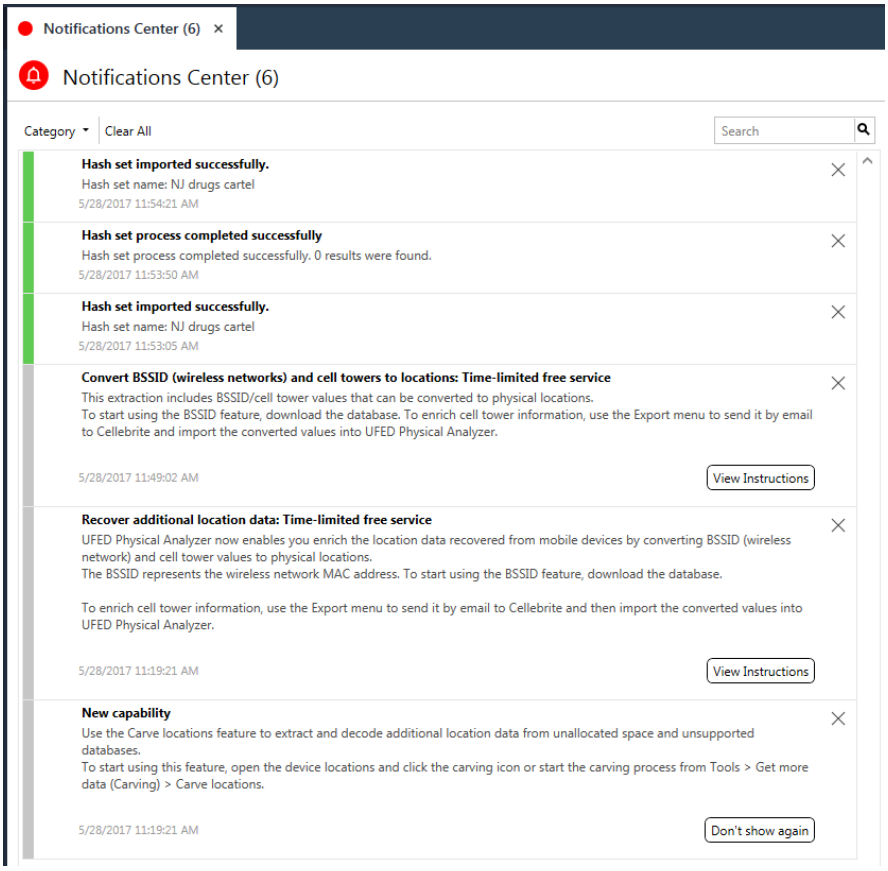
To view your notifications.

1. Click the on the top right of the screen.



> The notification counter resets to zero after the messages have been reviewed.

2. Click **View all notifications** to open the Notifications center tab.


Notifications Center (6)
Notifications Center (6)
Category
Clear All
Search
Hash set imported successfully.
Hash set name: NJ drugs cartel
5/28/2017 11:54:21 AM
Hash set process completed successfully
Hash set process completed successfully. 0 results were found.
5/28/2017 11:53:50 AM
Hash set imported successfully.
Hash set name: NJ drugs cartel
5/28/2017 11:53:05 AM
Convert BSSID (wireless networks) and cell towers to locations: Time-limited free service
This extraction includes BSSID/cell tower values that can be converted to physical locations.
To start using the BSSID feature, download the database. To enrich cell tower information, use the Export menu to send it by email to Cellebrite and import the converted values into UFED Physical Analyzer.
5/28/2017 11:49:02 AM
View Instructions
Recover additional location data: Time-limited free service
UFED Physical Analyzer now enables you enrich the location data recovered from mobile devices by converting BSSID (wireless network) and cell tower values to physical locations.
The BSSID represents the wireless network MAC address. To start using the BSSID feature, download the database.
To enrich cell tower information, use the Export menu to send it by email to Cellebrite and then import the converted values into UFED Physical Analyzer.
5/28/2017 11:19:21 AM
View Instructions
New capability
Use the Carve locations feature to extract and decode additional location data from unallocated space and unsupported databases.
To start using this feature, open the device locations and click the carving icon or start the carving process from Tools > Get more data (Carving) > Carve locations.
5/28/2017 11:19:21 AM
Don't show again

In this tab, you can do the following:

- Select notification category to display (Error, Information, Success, or Warning)
- Clear all notifications
- Search for a specific notification
- View details about a notification
- View instructions for a feature

4. Locating and analyzing information

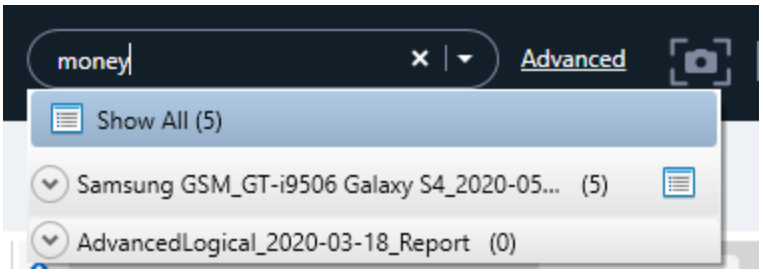
This section describes how to browse, search, filter, bookmark, and manage the information in your project.

4.1. Searching for information in all open projects

Use the all project search bar in the toolbar to search for information in all open projects.

1. Type any string in the search bar.

   A list of matching results appears under the search bar. The results are sorted by open project. Within each open project, the results are sorted by categories according to type (messages, contacts, files, and so on). The number of matching results found in each type category is also displayed.



2. Click to collapse or expand the projects.

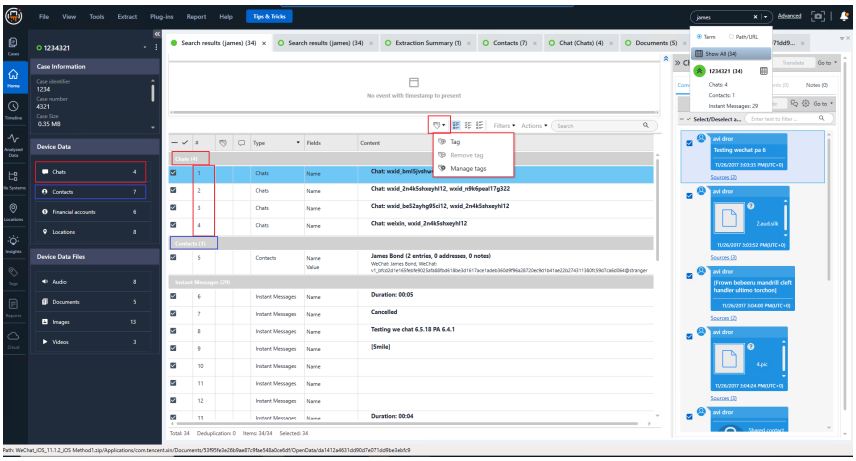
3. Do one of the following:

   - Click next to the project name to view the results of the search in that extraction in a tab in the data display area.

   - Select **Show All** from the top of the quick results list to display a Search results tab in the data display area listing all the matching search results.

     The matching string in each item is indicated. As in the quick results list, the Search results tab

lists the results by type.



You can create tags for the global search results items by selecting the **Manage Tags** or **Tag** options by clicking , however Device Info and folder files cannot be tagged.

Your recent search activity (up to 20 searches), including All projects search and table search are saved, until you close the application.

4.2. Searching for information in a data tab

In **Table View** tabs, search for a particular item within the data table. The search is performed on all the data entries within the table.

» In the **Table Search** field, type a string.

The table updates to display only items containing the string you entered.

4.3. Using advanced search

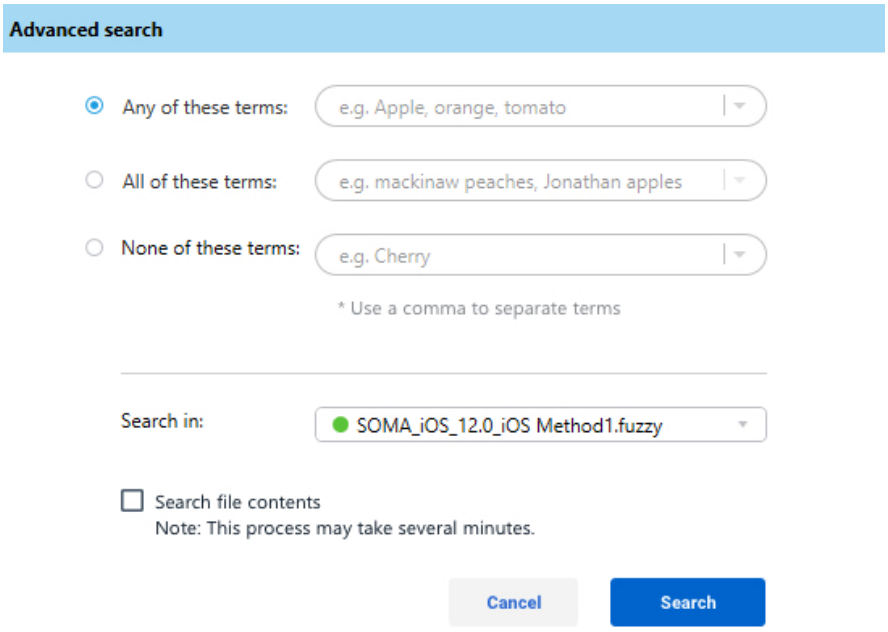
Using the new Advanced Search capability, narrow the scope of queries by applying filters and specifying additional requirements for a search. This functionality enables:

- Multiple keywords search
- And, or and exclude
- Searching in files content

To start using the Advanced Search:

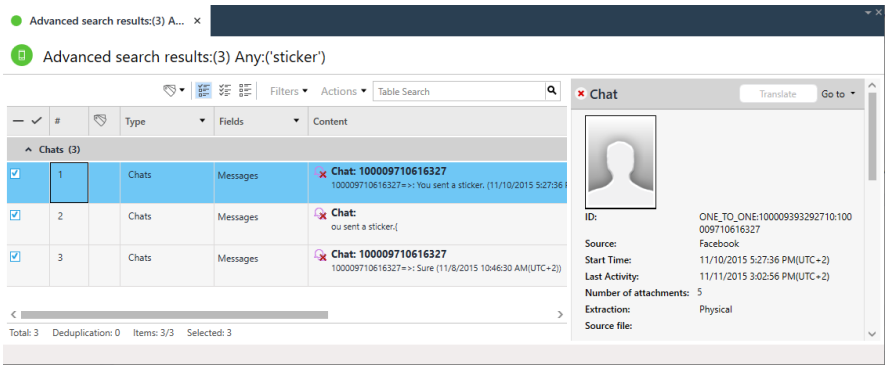
1. Click **Advanced** at the top right of the screen.

The following window appears.



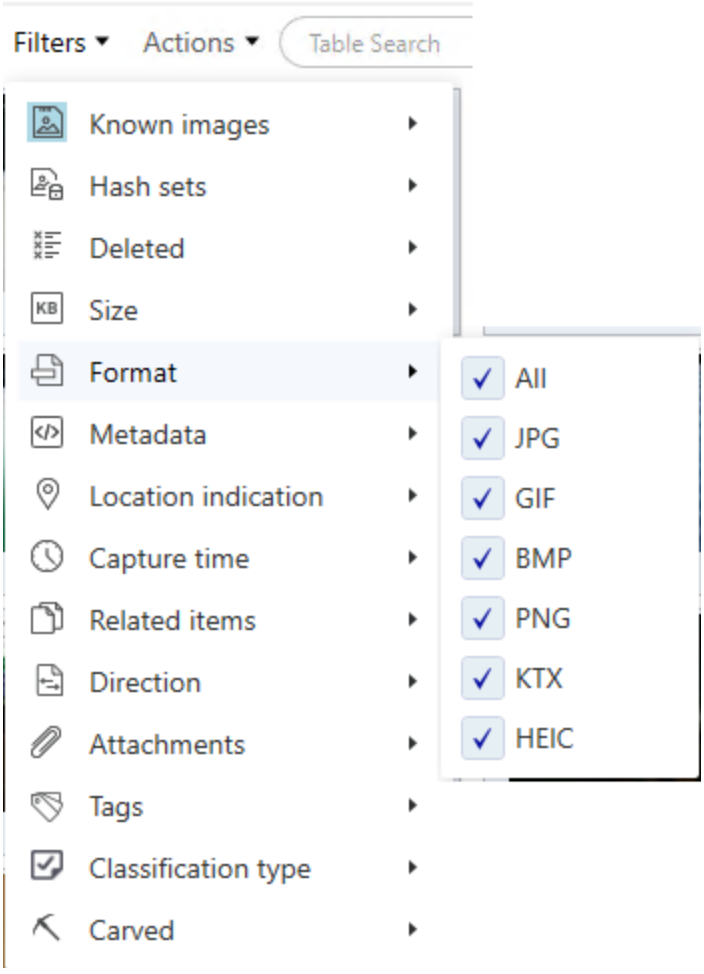
2. Enter any, all, or none of these terms.
3. Use a comma to separate terms.
4. Select the project (or search all projects).
5. To search in the contents of files within the extracted device (including file formats such as XML, plist, txt, DB, PDF, xlsx, DOCX, etc.), select **Search file contents**.
6. Click **Search**.

Search results are presented in a separate **Advanced search results** tab, where you can view results, and tag and mark items to include in your report.



4.4. Using the quick filter

Use the quick filter options to easily filter the table. The following example shows the filter options when viewing the table in the Images tab.



Use the quick filters to filter data in Table View tabs.

Icon	Filter	Description
	Only-non system	Display native or non-system images. Filter images that come with the device or as part of an app installation. By default, all system images are filtered. You can change this setting under **Settings** > **Data Files**.
	Show all	Display all items. This filter overrides the filters applied with the following three filters: Only selected, Only unselected, and Deleted.
	Only selected	Display only items that are selected.
	Only unselected	Display only items that are not selected.
	Deleted	Display only deleted items.
	Show all image sizes	Display all images. This filter overrides the filters applied with the following three filters: Display images above 30 KB, above 100 KB, and above 500 KB.
	Display images above 30 KB	Display only small images above 30 KB.
	Display images above 100 KB	Display only medium-sized images above 100 KB.
	Display images above 500 KB	Display only large images above 500 KB.
	Filter images (by signature)	Click to enable file type filtering: JPEG, GIF, BMP, or PNG.
	Show JPEG	Display JPG or JPEG files.
	Show GIF	Display GIF files.
	Show BMP	Display BMP files.
	Show PNG	Display PNG files.
	Metadata	Filter image and video files by **Metadata** (**All**, **Without metadata**, or **Has metadata**) and **Location** (**All**, **Has location**, or **Without location**).
	Capture time	Filter image and video files by capture time. The maximum range is displayed by default; you can select a specific date and time range.
	Translation filter	Filter translated text to display all text, translated text or text that has not been translated.

Icon	Filter	Description
	Related items	Filter related items for extractions. This is very useful when working with the Multiple Extractions feature. **All** displays all items, **Only deduplications** displays only items that include deduplications (duplicate or redundant data), **Only non-deduplications** displays only items that do not include deduplications, and **Only items with additional data** displays only items that include additional information.
	Translation commands	Translate all or selected texts, or delete translations.
	Conversation view	Open a conversation tab that displays the item and related messages.
	Open messages	Open all messages within a conversation in a table view.
	Attachment	Filter data files with attachments. **All** is for all data files, **Attachments** is for data files with attachments, and **Not attachments** is for data files that are not attachments.
	Attachment filter	Filter attachments that were sent or received. **All** is for all attachments, **Sent** is for attachments that were sent, **Received** is for attachments that were received, and **Unknown** is for unknown attachments.
	Attachment source app	Filter by the attachment's source app. All apps in the extraction are listed. Select the apps to display and then click **Finish**.
	Tag	Tag selected items.
	Remove tag	Remove a tag from the selected items.
	Manage tags	Open the Manage tags window.
	Open SQLite wizard	Open the SQLite wizard to build SQL queries and map database fields to Cellebrite Reader models.
	Hide/view lower pane	Hide the lower pane with map item details. Click again to open the pane.
	Hide/view right pane	Hide the right pane with item details. Click again to open the pane.
Export	Export	Export the current view to an Excel (only hash values), Excel, HTML, PDF, XML, Word file, Project VIC (JSON), or Griffeye format (* C4P Index.xml). You can import the exported image or video files into Griffeye using a C4All XML data source.
	Location filter	Filter the locations displayed on the map.

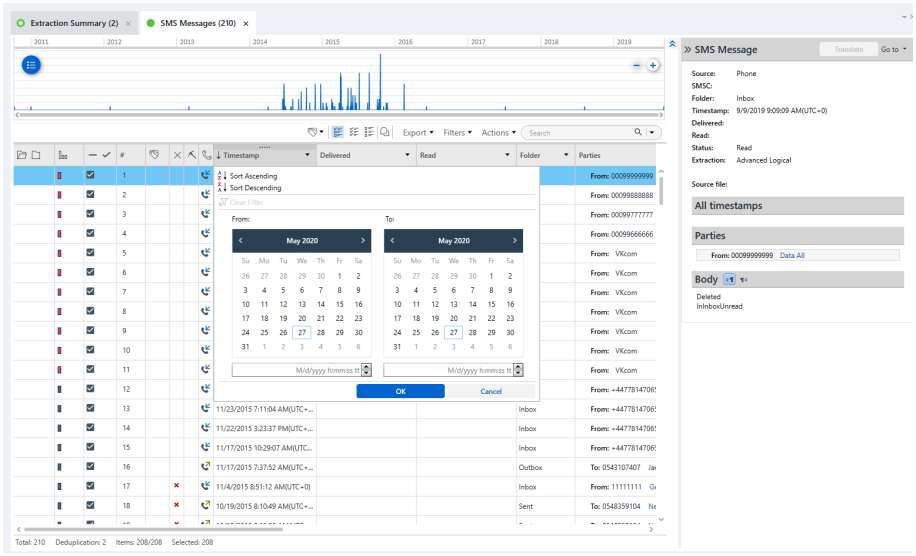
Icon	Filter	Description
	Retrieve address	Retrieve a physical address for the selected location.
	Group by	Group selected images or videos by time captured or recorded, created, modified, accessed, or deleted, or by camera make or model.
	Remove all filters	Remove all applied filters.

The toolbar items are context-sensitive and only appear when relevant data is displayed.

4.5. Using the advanced filters

The data tables have many advanced filtering and sorting options to drill down to specific data and display them according to your requirements.

Filter by Type, Timestamp, Party, Description, Source, Source file information, Extraction, etc.



To filter the table

1. Click the dropdown icon in a column heading.
2. Select the filter options
3. Click **OK**.

> To clear applied filters, click **Clear filters**.

To sort the table

1. Click the dropdown icon in the Timestamp column heading.
2. Select either:
   - **Sort ascending**
   - **Sort descending**

4.6. Accessing conversation view

Communication-based data, such as call logs, email, and instant messages can be displayed in a conversation view layout for easier tracking of the communication between two or more parties.

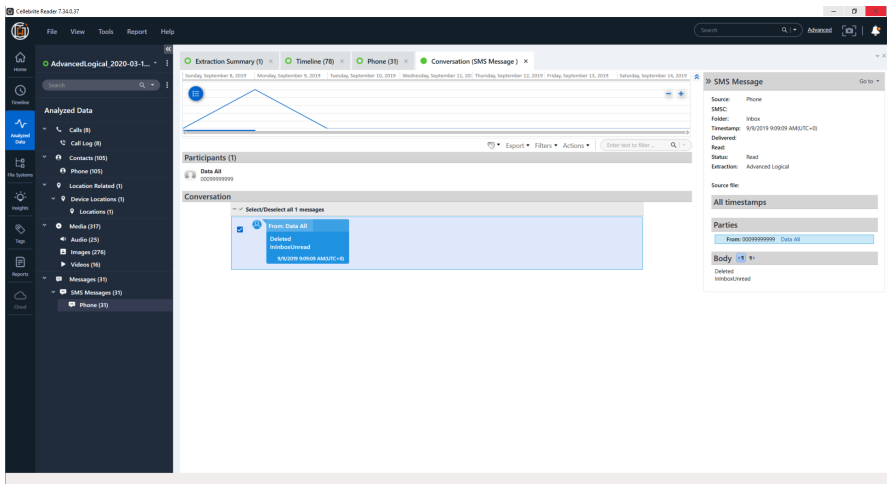
You can search for messages within a chat, select the messages to include within a report (by default all chat messages are included), or export the conversation.

Messages in the conversation have an indication of how they were sent - PC, mobile, or Siri (for native iMessages).

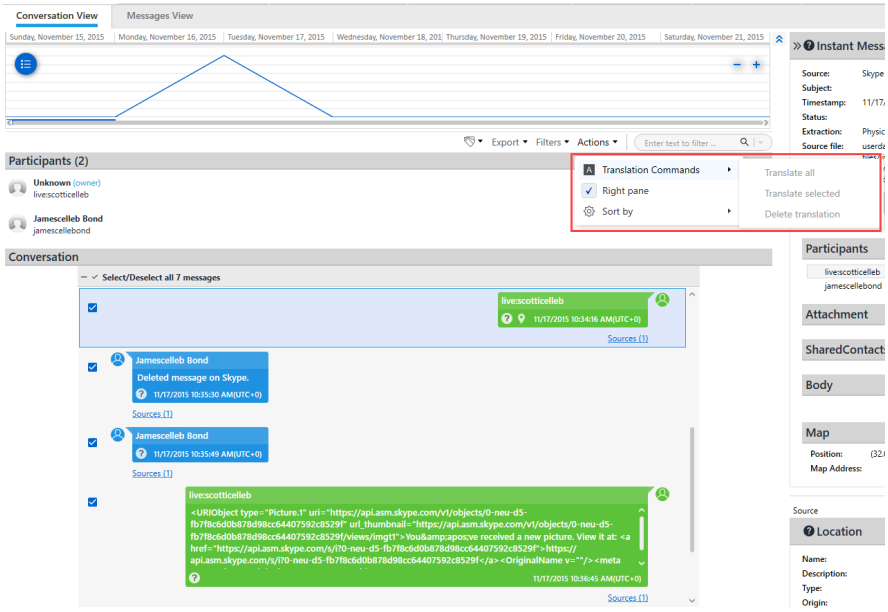
In some cases, mainly when messages have been deleted, they cannot be forensically placed in a Chat. To maintain forensic accuracy of the messages, they are placed in Instant messages and available for review under **Analyzed data > Instant messages**.

To access and use conversation view:

1. In a communication-based data table, select one of the records.
2. Click the icon above the table.
3. A conversation tab opens, displaying related items as a conversation between the sending and receiving parties of the selected item.



4. To translate or delete translated text, click **Actions > Translation commands** and then select **Translate all**, **Translate selected**, or **Delete all translations**.

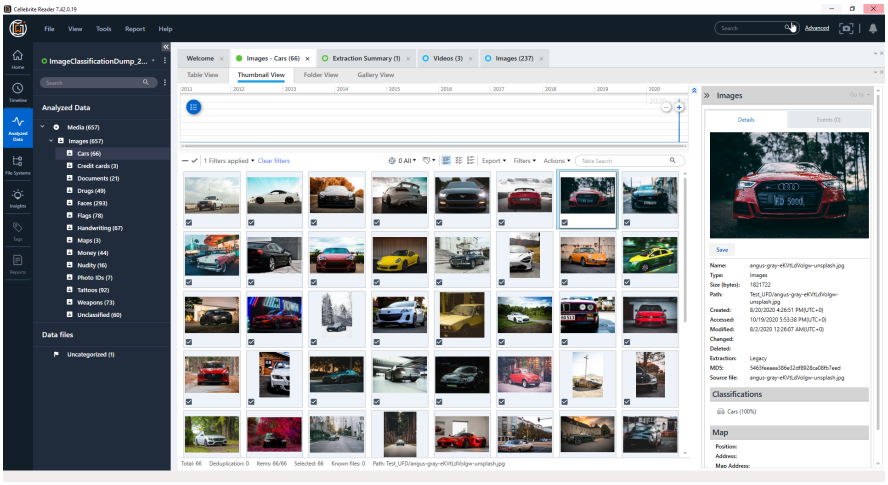


5. To export the conversation, click **Export**.
6. Select the desired output: Excel, HTML, PDF, XML, Word, or EML (email files).
7. To change the order of the conversation, click **Actions > Sort by** and then select **Oldest message first** or **Newest message first**.
8. To filter messages, type text in the search field or click **Filter**.
9. To add or edit tags, click .
10. Select a checkbox to include specific messages in the report.

4.7. Viewing image files

1. In the Analyzed data tab, go to **Media > Images**.
2. Double-click **Images** to open the Images tab.

> If media classification was run on the extraction, you can double-click the relevant category to open its tab. See Media classification .



In the Images tab, you can select the type of view (Table View, Thumbnail View, Gallery View) to use to see the images. Available views include:

- **Table view**

  View a list of all images in table format. Double-click on an image to open in a separate tab.

- **Thumbnail view**

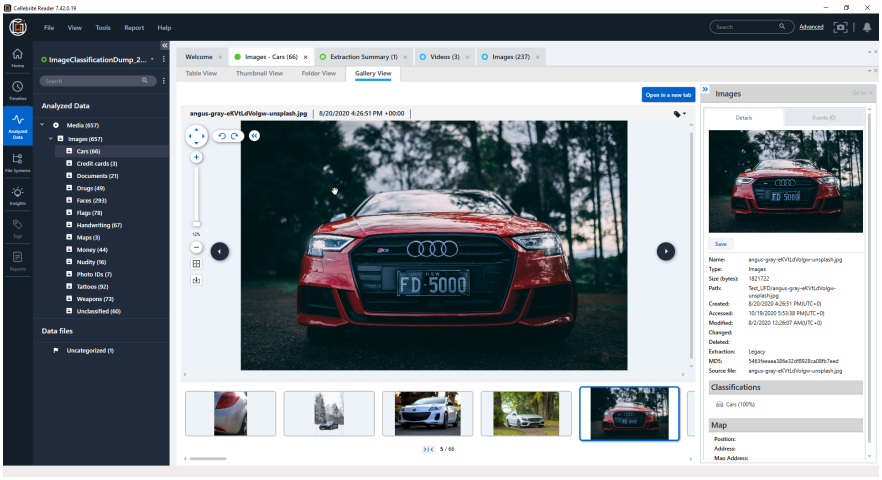
  View images by thumbnail. Double-click the image to open in Gallery view.

- **Folder view**

  View the folder structure of the data files paths in the reconstructed file system. Double-click an item to open in Gallery view.

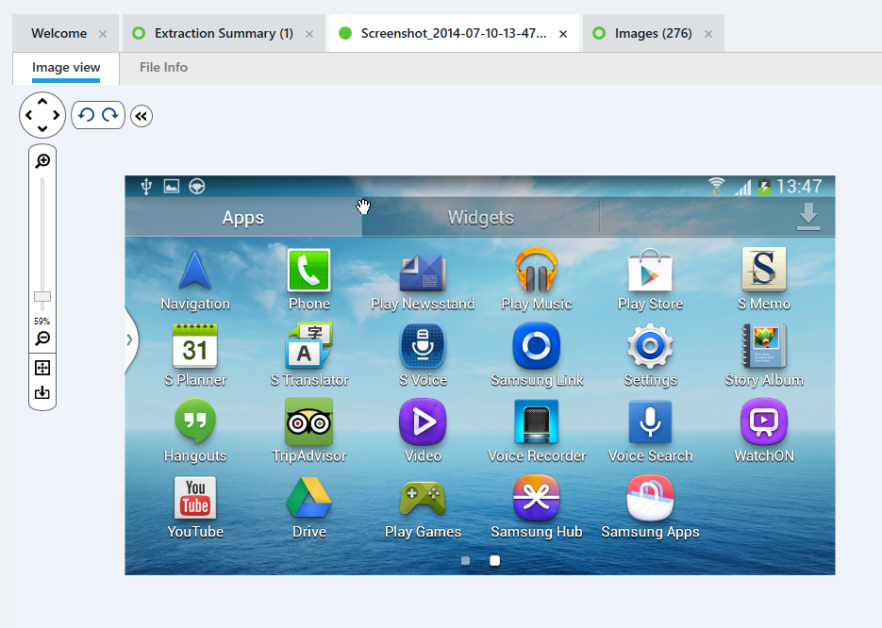
- **Gallery view**

View images in gallery format, easily scrolling through images.



Viewing single images

1. In Gallery view, click **Open in a new tab** to view the image in a separate tab.



The subtabs for each image include:

- **File info**: view the file information. For example, the File metadata section includes information such as the Capture Time, which is the date and time a photo was taken.
- **Image view**: Use the image controls as required.

When the image is enlarged, click to navigate the image.

Rotate image clockwise and anticlockwise.

Zoom in and out. You can also adjust the zoom using the slider.

Zoom to fit the tab.

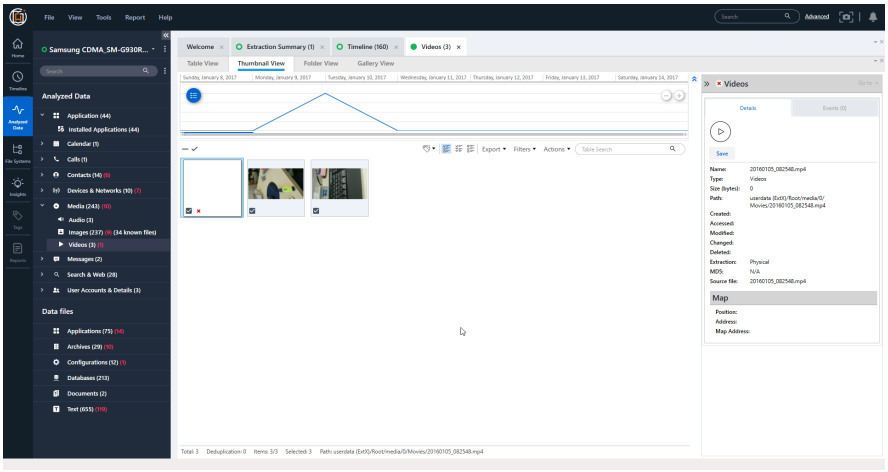
Reset the zoom to 100%.

Hide image controls.

4.8. Viewing video files

1. In Analyzed data, go to **Media > Videos**.
2. Double-click **Videos** to open the Videos tab.

> If media classification was run on the extraction, you can double-click the relevant category to open its tab. See Media classification.



In the Videos tab, you can select the view you wish to see the videos. Available views include:

- **Table view**

  View a list of all videos in table format. Double-click on a video to open in a separate tab.

- **Thumbnail view**

  View videos by thumbnail. Double-click the video to open in Gallery view.

- **Folder view**

  View the folder structure of the data files paths in the reconstructed file system. Double-click an item to open in Gallery view.

- **Gallery view**

  View videos in gallery format, easily scrolling through videos. If media classification was run on the extraction, view additional category details.

Viewing single videos

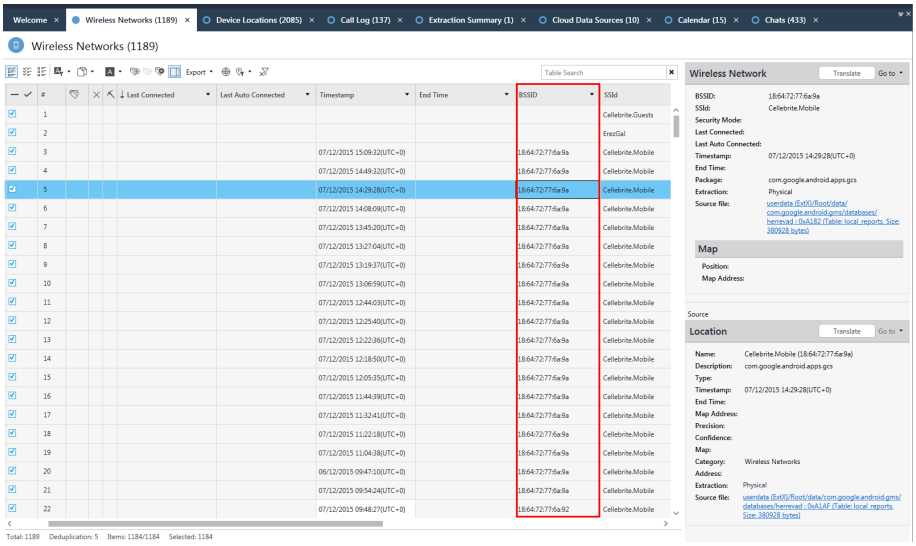
1. In Gallery view, click **Open in a new tab** to view the video in a separate tab.

The subtabs for each video include:

- File info: view the file information. For example, the File metadata section includes information such as the Capture Time, which is the date and time the video was taken.
- Video view: Play the video, view frames according to media categories.

4.9. Enrichment of BSSID and cell IDs

Cellebrite Reader enables you to enrich the location data recovered from mobile devices by converting BSSID (wireless network) and cell IDs (cell tower) to physical locations. When viewing location data, BSSID values are displayed.

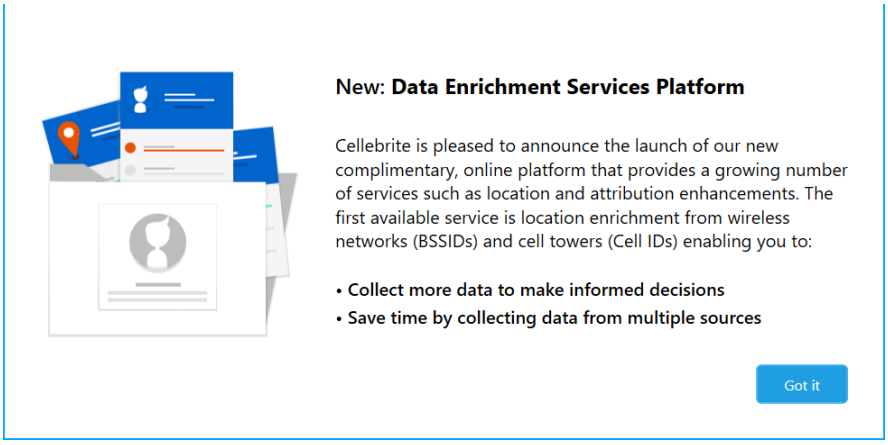


If all BSSIDs and cell IDs have already been enriched, then the Enrichment feature is not available.

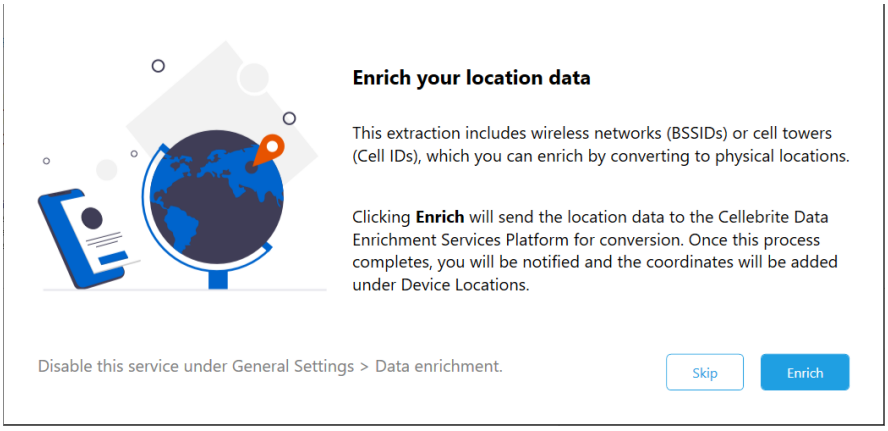
4.9.1. Online enrichment

To enrich BSSID and cell tower IDs (online):

1. If you have an Internet connection and you open an extraction with BSSID or cell IDs, the following window appears (the first time only).


New: Data Enrichment Services Platform
Cellebrite is pleased to announce the launch of our new complimentary, online platform that provides a growing number of services such as location and attribution enhancements. The first available service is location enrichment from wireless networks (BSSIDs) and cell towers (Cell IDs) enabling you to:
• Collect more data to make informed decisions
• Save time by collecting data from multiple sources
Got it

2. Click **Got it**. The following window appears.


Enrich your location data
This extraction includes wireless networks (BSSIDs) or cell towers (Cell IDs), which you can enrich by converting to physical locations.
Clicking Enrich will send the location data to the Cellebrite Data Enrichment Services Platform for conversion. Once this process completes, you will be notified and the coordinates will be added under Device Locations.
Disable this service under General Settings > Data enrichment.
Skip
Enrich

3. Click **Enrich** to convert to the physical locations via the Enrichment service.

> You will receive a notification when the process completes and the new locations are added under **Device Locations**.

> You can also access **Online enrichment** from **Tools** > **Enrichment of BSSIDs and Cell IDs**.

To disable the automatic conversion of BSSID and cell tower IDs to physical locations:

1. From the **Tools** menu, click **Settings**.
2. Under **General settings**, scroll down to **Data enrichment**.
3. Clear **Convert BSSID values (wireless network) to physical locations**.

4.10. Generating dictionary files

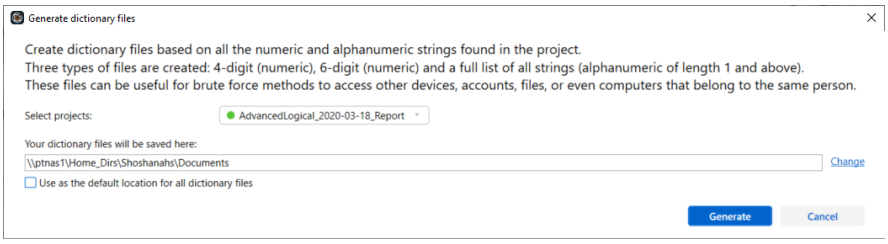
Create dictionary files based on all the numeric and alphanumeric strings found in the project.

Three types of files are created: 4-digit (numeric), 6-digit (numeric) and a full list of all strings (alphanumeric of length 1 and above).

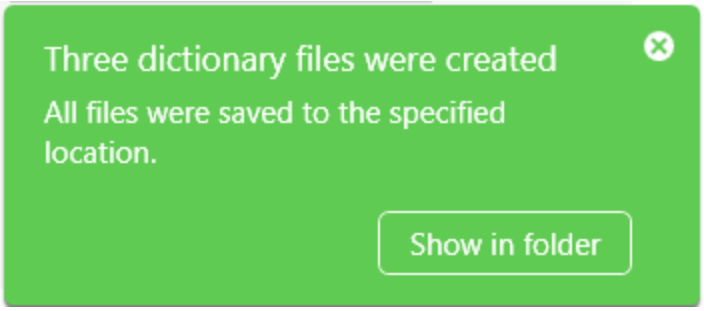
These files can be useful for bruteforce methods to access other devices, accounts, files, or even computers that belong to the same person.

To generate the word lists:

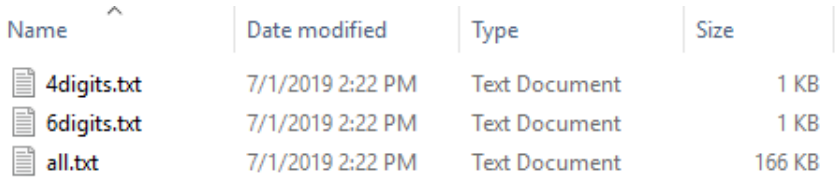
1. Select **Tools** > **Generate dictionary files**. The following window appears.


Generate dictionary files
Create dictionary files based on all the numeric and alphanumeric strings found in the project.
Three types of files are created: 4-digit (numeric), 6-digit (numeric) and a full list of all strings (alphanumeric of length 1 and above).
These files can be useful for brute force methods to access other devices, accounts, files, or even computers that belong to the same person.
Select projects:
AdvancedLogical_2020-03-18_Report
Your dictionary files will be saved here:
\\ptnas1\Home_Dirs\Shoshanahs\Documents
Change
Use as the default location for all dictionary files
Generate
Cancel

2. Select the required project.
3. Click **Change** to change the default location where the text files are saved.
4. Select the **Use as default location for all dictionary files** to change the default location. The default location is specified under **Settings** > **General Settings**. See General settings (on page 103).
5. Click **Generate**. The dictionaries are created and the following notification is displayed.



6. Click **Show in folder** in the notification to access the word lists.



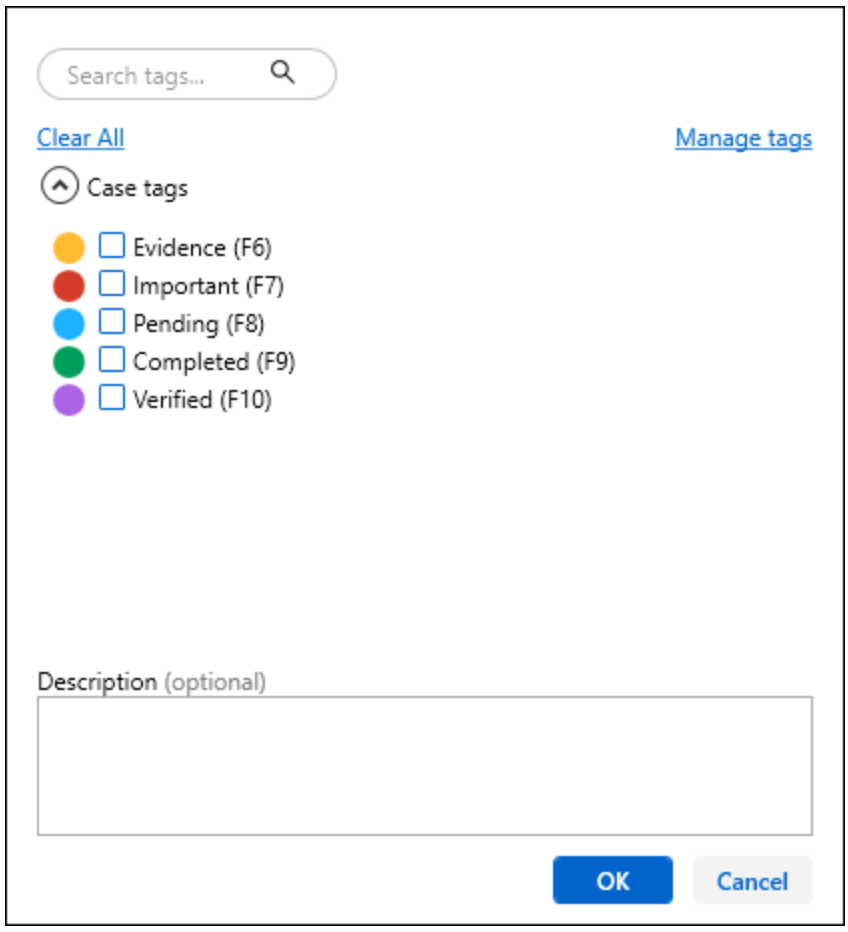
4.11. Using Tags

While reviewing events, contacts, etc., the investigator can tag items for future reference. Each item can have multiple tags. A tag is essentially a quick reference you can create on individual items:

- An **Analyzed Data** item such as a call from the call log, a contact record, an email message, etc. See Analyzed data (on page 26).
- A **Data Files** item such applications, archives, configurations, databases, and so on. See Data files (on page 27).

To tag an item:

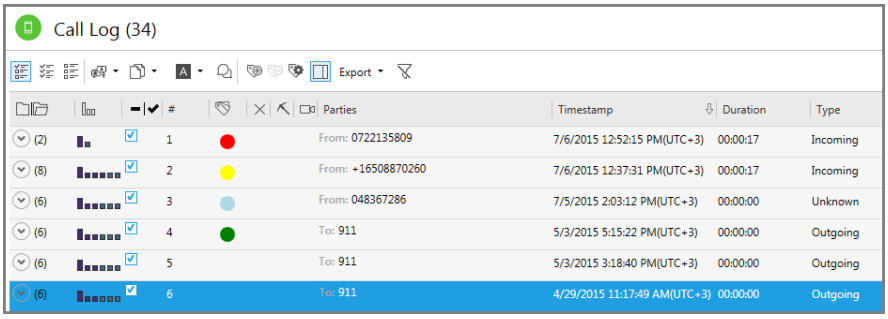
1. Click . The following window appears.



> The window also includes Project VIC or CAID categories.

> To display other Project VIC/CAID categories, go to **General settings** > **Hash sets**.

2. Choose the relevant tag and click OK.



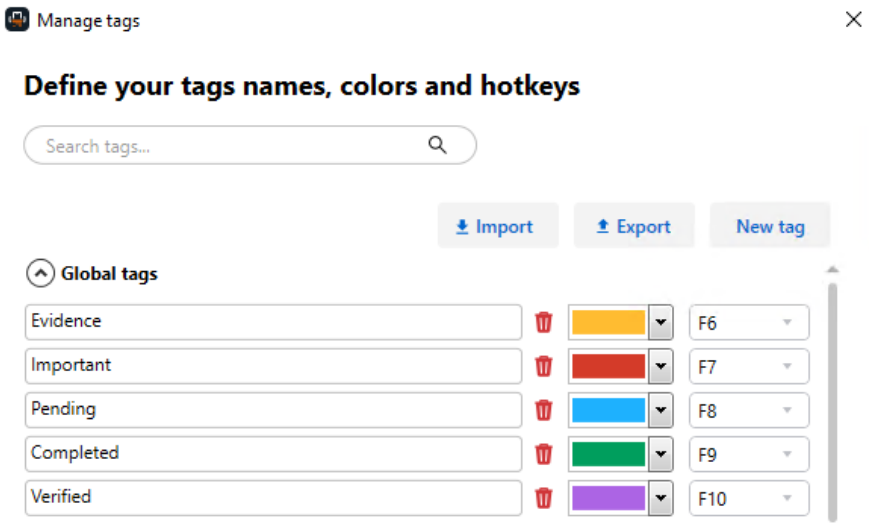
To remove a tag, click .

The tags you create can be viewed via the **Tags** tree item. The number of tags in the project is shown in brackets next to the section name. You can create or remove multiple tags.

Double-click the **Tags** tree item to list the tags in a tab in the data display area. Selected tags are included in reports that you generate.

To manage tags:

1. Click . The following window appears.



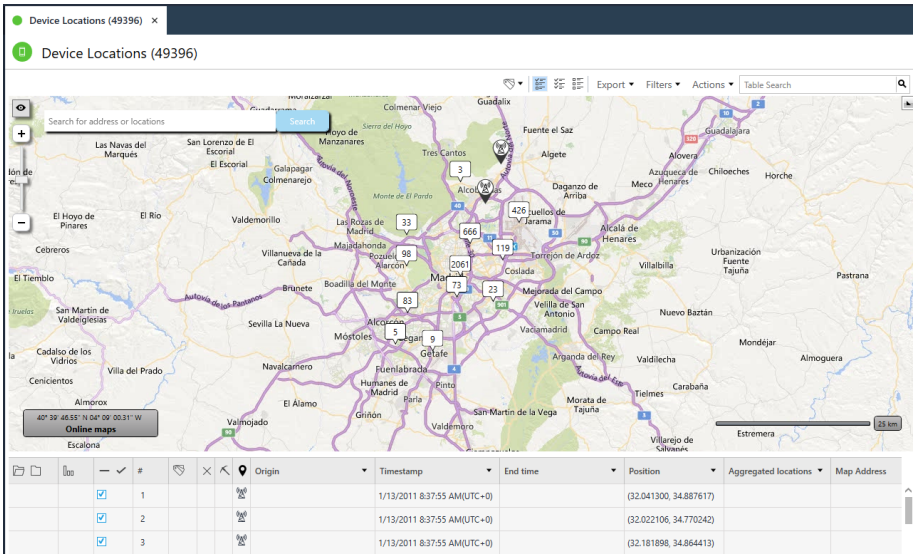
The window also includes Project VIC or CAID categories.

2. Define each tag's name, color, and hotkey, as desired.
3. To delete a tag, click next to the tag name.
4. To create a new tag, click **New tag**. A new line appears.
5. To export tags click **Export** a list of tag labels.
6. To import tags click **Import** a list of tag labels.

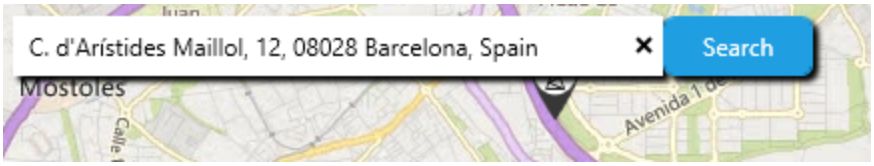
The Manage tags window can also be accessed from **Tools > Manage tags**.

4.12. Viewing online maps

The maps function is available to Cellebrite Reader users with a valid license. The locations are presented with an icon displaying the location type. Filter the locations based on multiple attributes including date, time, and location type.



4.12.1. Search and jump to a location on the map



You can use this capability to view all location related events for a specified address. Search for the specific location or zoom-in to the desired location on the map, and all other location-related events that occurred in the vicinity appear on the map. You can search for a location while working in online mode, by typing an address, position (coordinates) or the name of a place.

4.12.2. Device origin

The Origin column classifies each recovered location record by its origin: Device or External. You can view and filter for locations that are related and unrelated to the device user's activities. (This does not mean the device has physically been in this location). For example, a picture taken by the camera on a digital device is classified as a Device location, but a picture received on the device is marked as an External location, because the location is related to the image sender. Classified locations are highlighted with a different color on the map.

Locations that cannot be classified are shown as Blanks (that is, unknown).

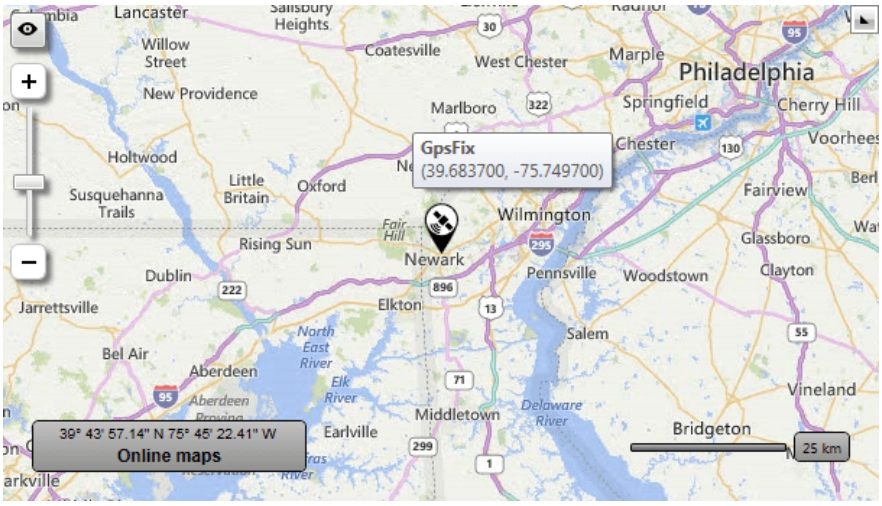
4.12.3. Using the map

Users can browse and search topographically-shaded street maps for many cities worldwide. Two types of map views are available to users by clicking the icon - Road View and Aerial View.

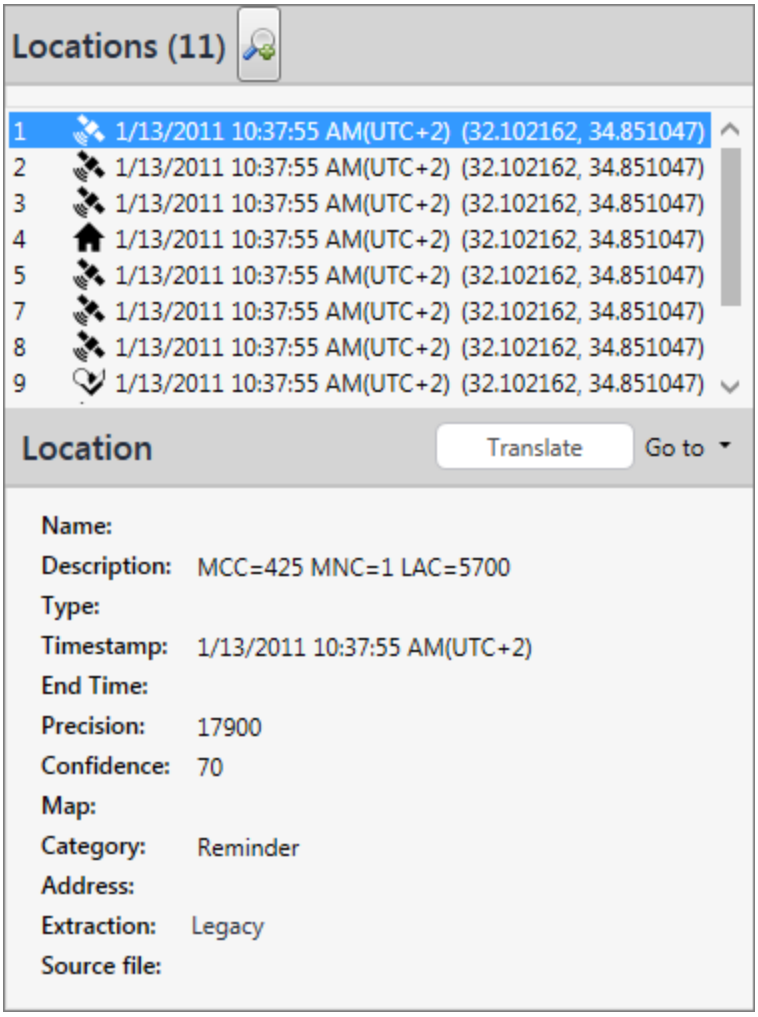
- Road View: Road view is the default map view and displays vector imagery of roads, buildings, and geography.
- Aerial View: Aerial view overlays satellite imagery onto the map and highlights roads and major landmarks for easy identification amongst the satellite images.

To highlight locations in the table:

» Click or zoom in to a location on the map.



Related events are displayed on the right pane under Locations.



To jump or link to the timeline:

» Click **Go to** on the right pane and select **Timeline**.

A new Timeline tab appears and the selected location is highlighted in the Table view.

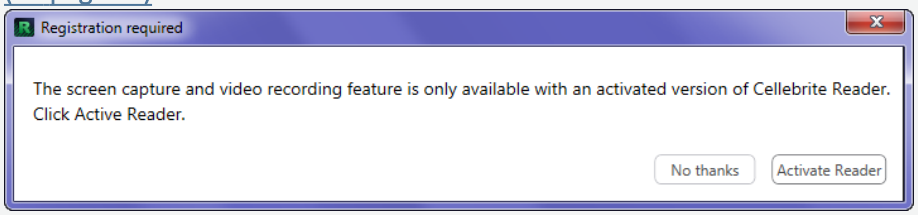
4.13. Recording screen captures and video

Use the Capture tool to record screen captures and videos. This enables you to:

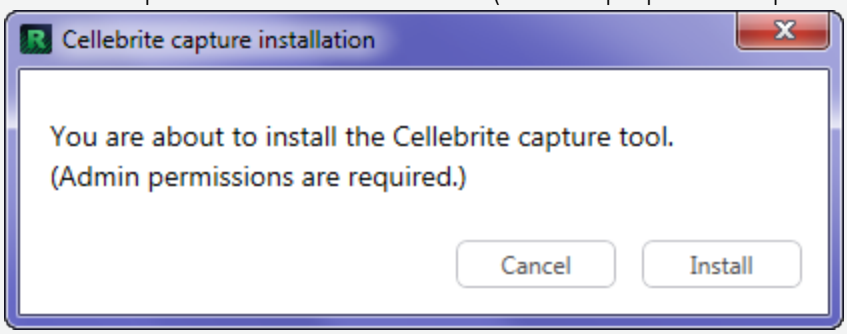
- Quickly and clearly document and explain your digital investigative processes
- Build visual reports that are easy to present and share
- Communicate with other personnel more effectively

For each screen capture or video recording, you can select an area, enter a label, add notes, save to a project or location on your computer, and include it in a report. The screen captures and videos can be included in all report formats including UFDR files, which can then be presented in Cellebrite Reader.

To use this tool, you must have an activated version of Cellebrite Reader. For information about activating Cellebrite Reader, see Activating Cellebrite Reader (on page 11).


Registration required
The screen capture and video recording feature is only available with an activated version of Cellebrite Reader.
Click Active Reader.
No thanks
Activate Reader

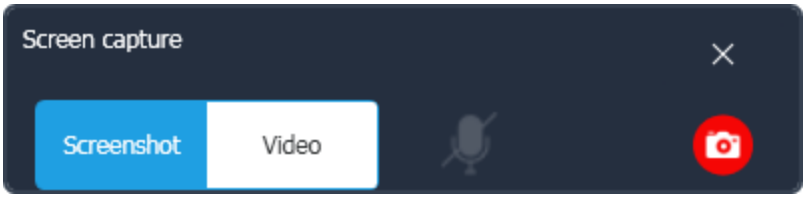
This tool requires a one- time installation (with the proper admin permission).



To use the Capture tool and play video playback, you need Windows Media Player (default version for installed operating system or higher).

To perform a screen capture or video recording:

1. Click **Screen capture** ( ). The screen capture window appears.

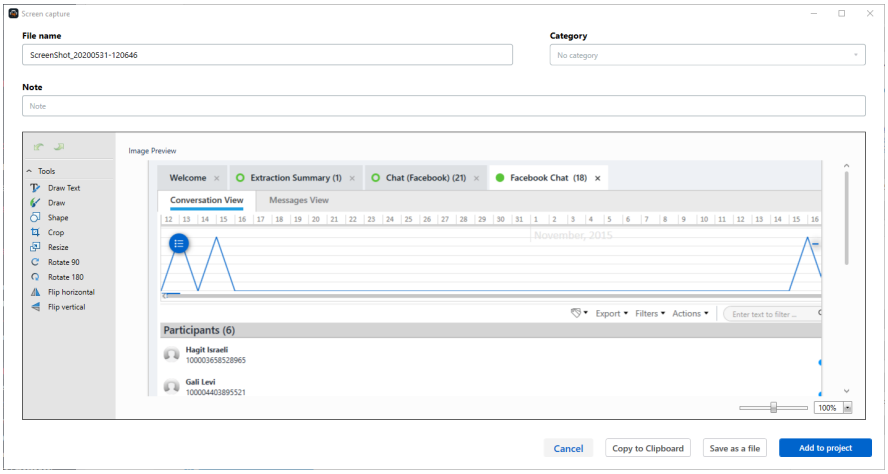


2. Select **Screenshot** or **Video**.

4.13.1. Screenshot

1. Click **Capture** ( ).

2. Select the capture area. The screenshot is taken and the following window appears.



3. Use the default file name or enter a new name.

> You cannot use the same file name that exists in another open project.

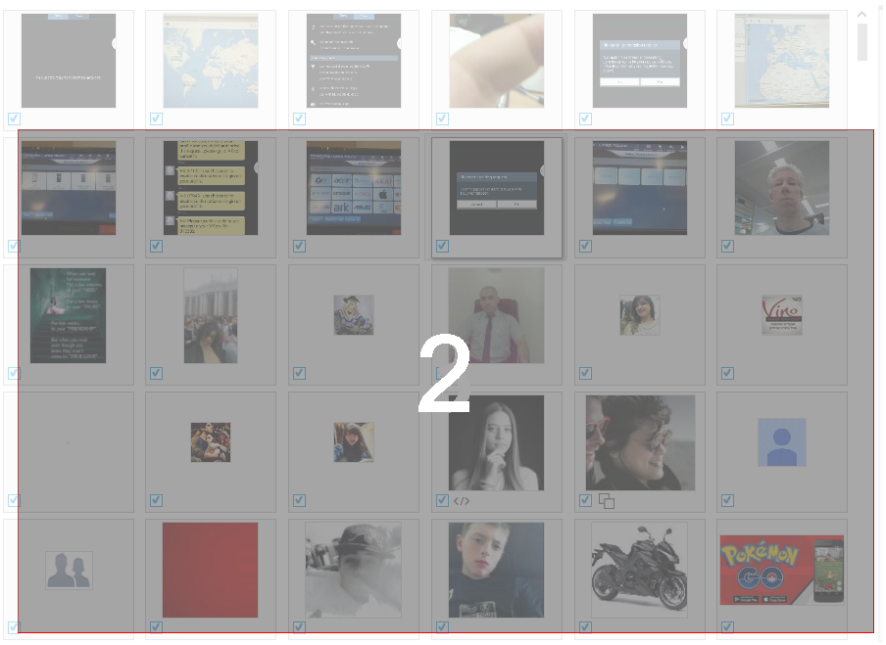
4. Select a category or enter a new category. The system remembers a maximum of 10 categories. The default category is **No category**. The screen capture is displayed under the selected category in the project tree.
5. Enter any notes to describe the screen capture.
6. To add text, draw shapes, crop, resize, rotate, or flip the screen capture, use the Tools on the left.
7. Click **Copy to Clipboard** to copy the screenshot, click **Save as a file** to save the screenshot to your computer (or network location), or **Add to project** to add the screenshot to a specific Cellebrite

Reader project.

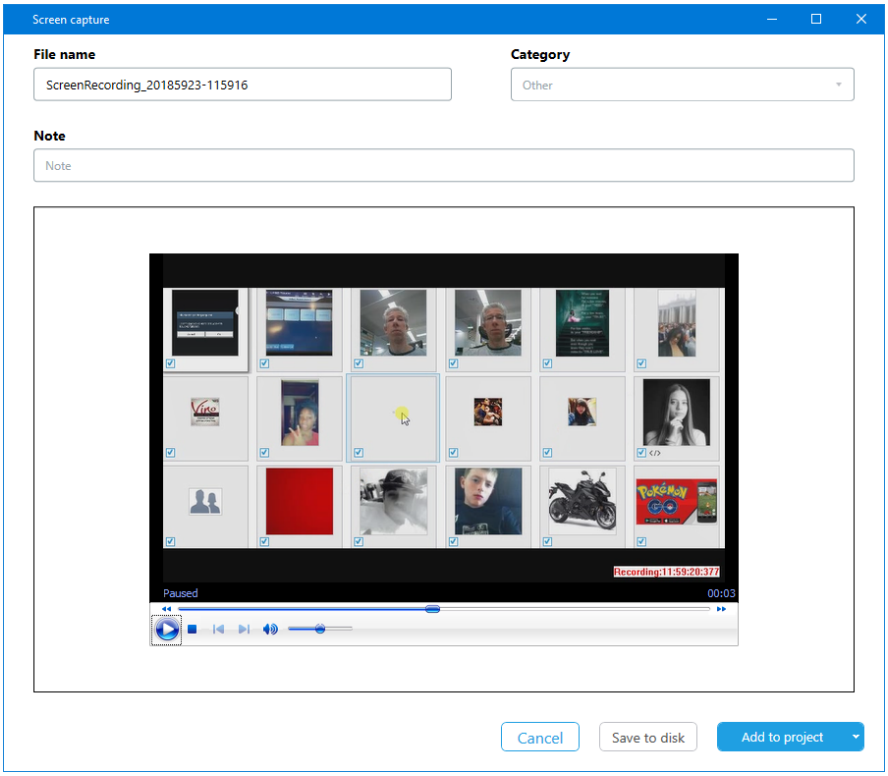
> Screenshots and videos are added to the Reports view project tree under **Additional files**.

4.13.2. Video

1. Enable or disable the microphone ( ).
2. Click **Capture** ( ).
3. Select the capture area. The video recording begins.



4. Perform the relevant actions that you want to record.
5. When you have finished, click **Stop** ( ) or **Pause** ( ). The following window appears.



6. Use the default file name or enter a new name.

> You cannot use the same file name that exists in another open project.

7. Select a category or enter a new category. The system remembers a maximum of 10 categories. The default category is **No category**. The video is displayed under the selected category in the project tree.
8. Enter any notes to describe the video.
9. Click **Save as a file** to save the video to your computer (or network location) or **Add to project** to add the video to a specific Cellebrite Reader project.

> Videos can be a maximum two hours long.

4.14. Media classification

The media classification feature classifies images and videos based on categories that are relevant to a case.

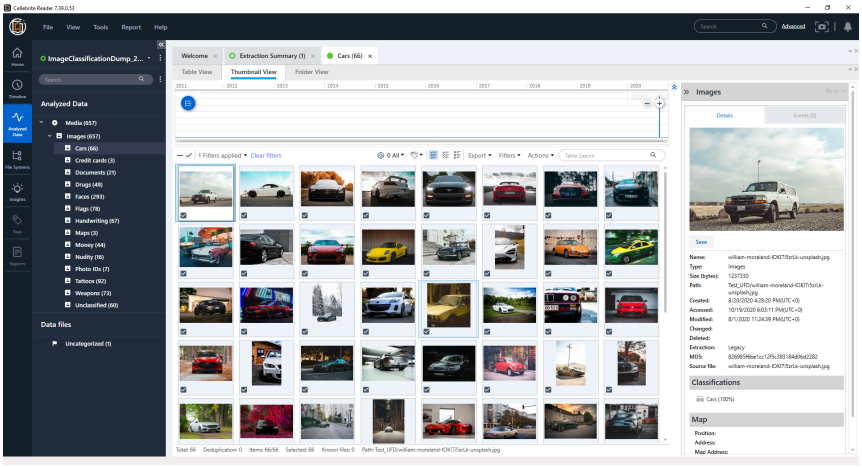
When an extraction is decoded in Physical Analyzer with this feature enabled, machine learning algorithms automatically scan and classify all media items in the case to the following categories:

- Camera
- Cars
- Credit cards
- Documents
- Drugs
- Faces
- Flags
- Food
- Gatherings
- Hand hold object
- Handwriting
- Hotel rooms
- Invoices
- Jewelry
- Maps
- Money (cash)
- Motorcycles
- Nudity
- Photo IDs
- Screenshots
- Smartphones
- Suspected CSA (Child Sexual Abuse)
- Tattoos
- Vehicle dashboards
- Weapons

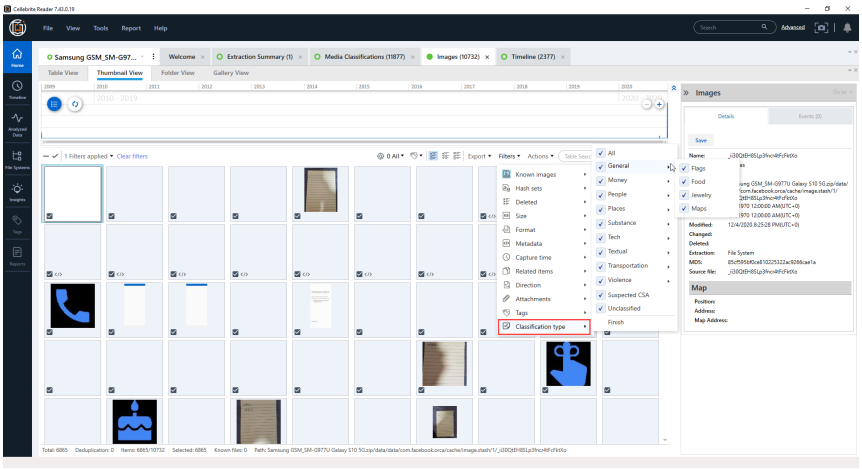
Viewing and analyzing classified media

After the report is loaded into Cellebrite Reader, there are three ways to view media items according to their classification.

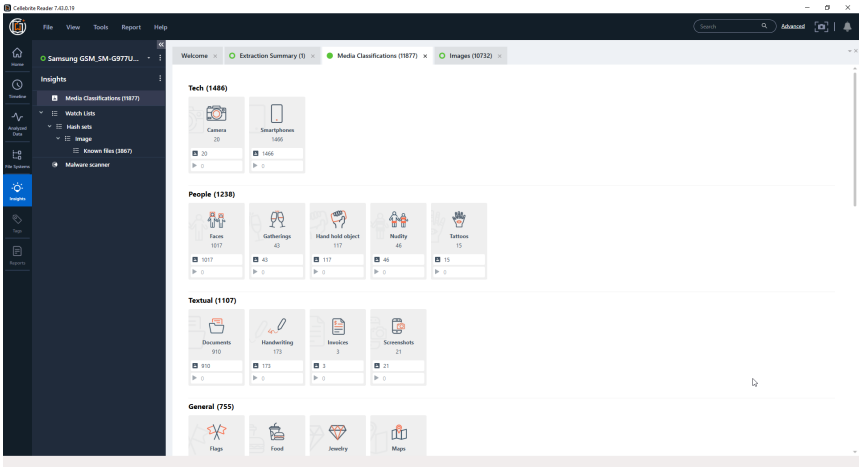
1. Analyzed data tree
   a. Click on the Analyzed data menu item.
   b. Go to **Media > Images** or **Media > Videos**
   c. Double-click a category to view the items.



2. Filtering the media by classification type
   a. Click on the Analyzed data menu item.
   b. Under **Media** tree item, double-click **Images** or **Videos**.
   c. Click **Filters > Classification type**.
   d. Select or clear the categories to display.



3. Insights
   a. Go to the Insights menu item.
   b. Double-click **Media classifications**.
   c. Double-click on a category to view the items.

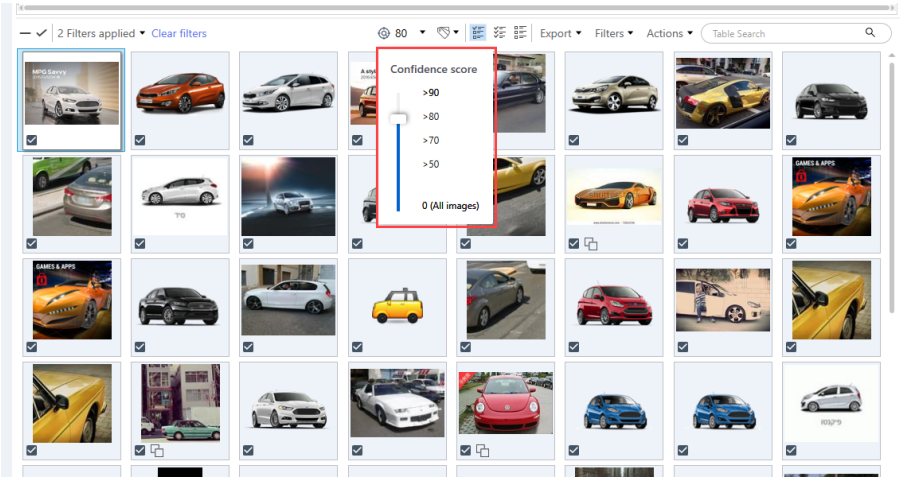


Media classification score control

Each classified media item is given a score (0-100%) based on classification accuracy. When viewing specific categories, the media items are sorted by score from highest to lowest score.

You can use the classification score filter to display results within a certain range.

In the example below, the classification score filter is set to display only those results with a score of 80% or higher. This filters out less accurate results.

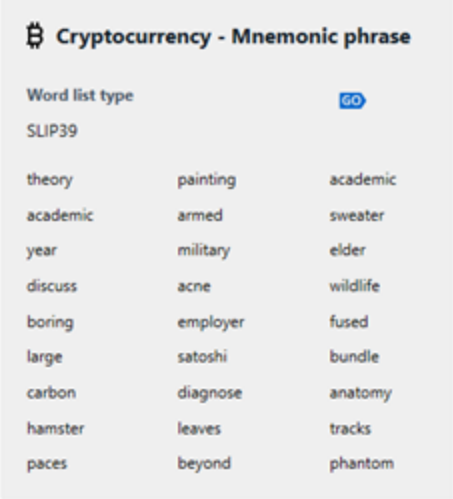


4.15. Cryptocurrency analyzer

After the Cryptocurrency analyzer is run on the case, the results are displayed in the Insights tab under **Cryptocurrency**.

Two types of cryptocurrency data may be displayed:

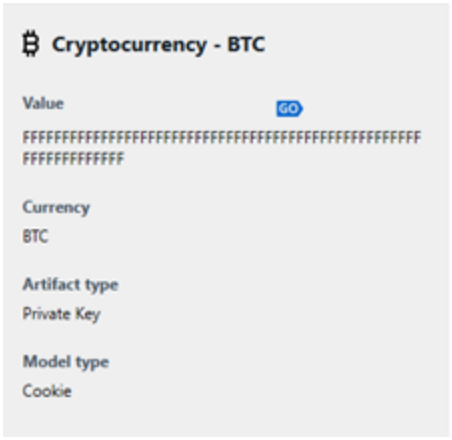
- **Mnemonic phrases**: A list of secret seed words that represent a wallet. Seed words allow the user to access and recover a wallet. The list is a random sequence of words, usually 12 or 24, taken from a list of 2,048 English words.



The Mnemonic Phrase of the following Crypto Wallets are now parsed by PA. The Mnemonic phrase can be used to seize funds from a Crypto wallet of interest.

- Coinbase Wallet
- Metamask
- BitPay
- Trust Wallet
- MyEtherWallet

- **Coin data**: Coin data including value, currency type, artifact type, and model type.


Cryptocurrency - BTC
Value
GO
FFFF

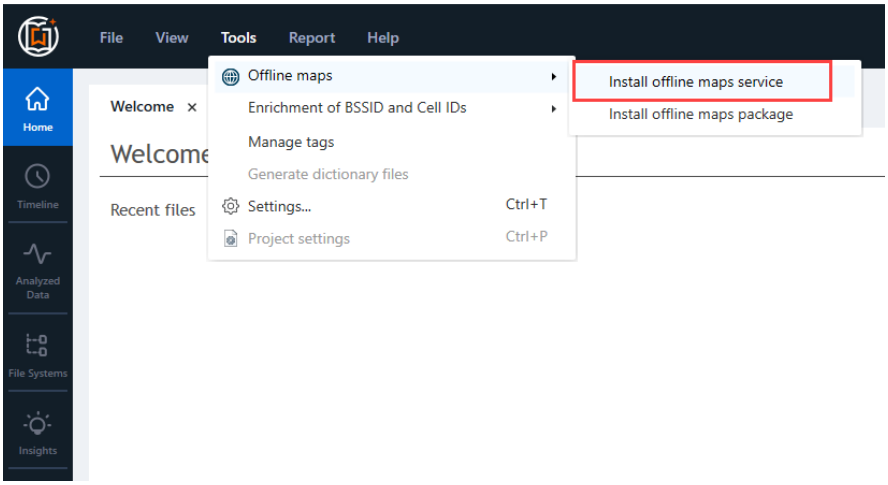
4.16. Using Offline maps

Use the Offline maps capability to access extracted location data when working offline.

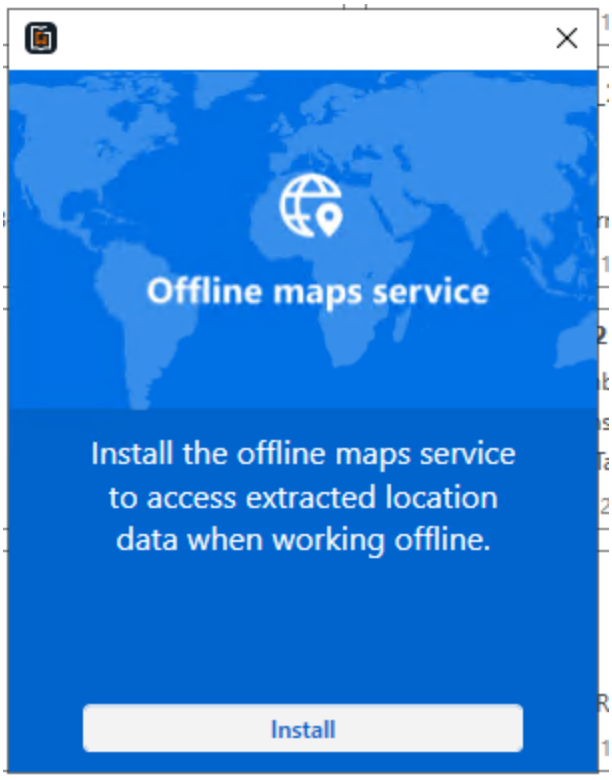
When using this capability with Cellebrite Reader for the first time, install the Offline maps service before installing the Offline maps package.

To install the Offline maps service

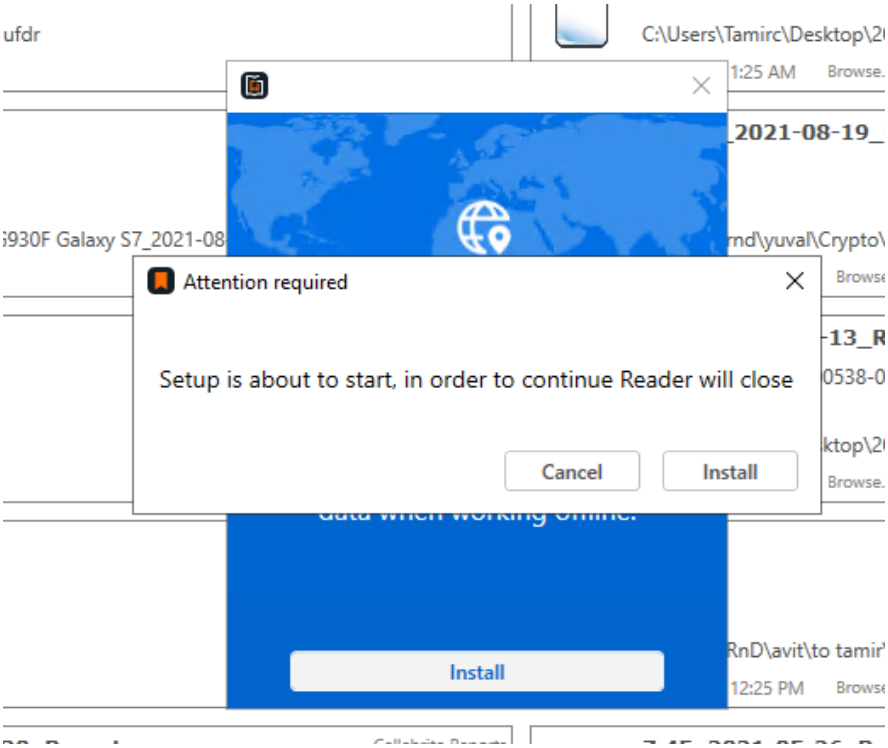
1. Go to **Tools > Offline maps > Install offline maps service**.



2. Click **Install**.

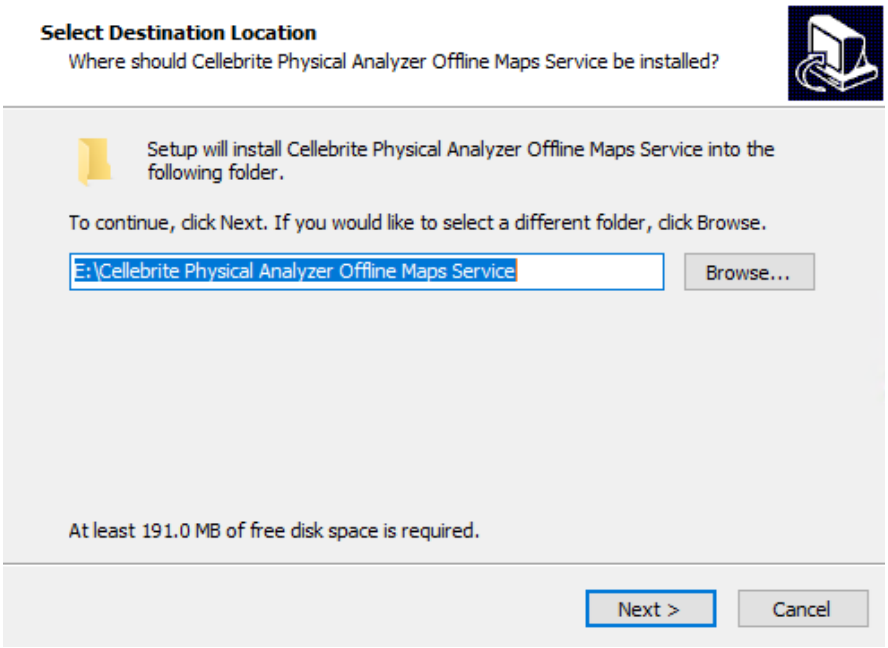

Offline maps service
Install the offline maps service to access extracted location data when working offline.
Install

3. To install the Offline maps service, Cellebrite Reader must close. Click **Install** to continue the installation. (If you do not want Reader to close, click **Cancel**).



4. Cellebrite Reader closes and the setup window appears.
5. Follow the setup instructions to complete the installation.

> We recommend that you copy the path where the offline maps service is installed. This makes it easier to locate when required in step 2 of To install the offline maps package in Cellebrite Reader .


Select Destination Location
Where should Cellebrite Physical Analyzer Offline Maps Service be installed?
Setup will install Cellebrite Physical Analyzer Offline Maps Service into the following folder.
To continue, click Next. If you would like to select a different folder, click Browse.
E:\Cellebrite Physical Analyzer Offline Maps Service
Browse...
At least 191.0 MB of free disk space is required.
Next >
Cancel

6. After installation completes (a restart is required), you can install the Offline maps package.

To download the Offline maps package

Before installing the Offline maps package in Cellebrite Reader, the package must be downloaded from MyCellebrite.

1. Log in to MyCellebrite.
2. In **Products and Licenses**, click in the Cellebrite Physical Analyzer product field.
3. In **Maps Pack**, locate and download the Offline maps package.

> There are several offline map packages. You can view extracted locations on a worldwide map and zoom in at a higher resolution to view streets in selected continents using offline maps.

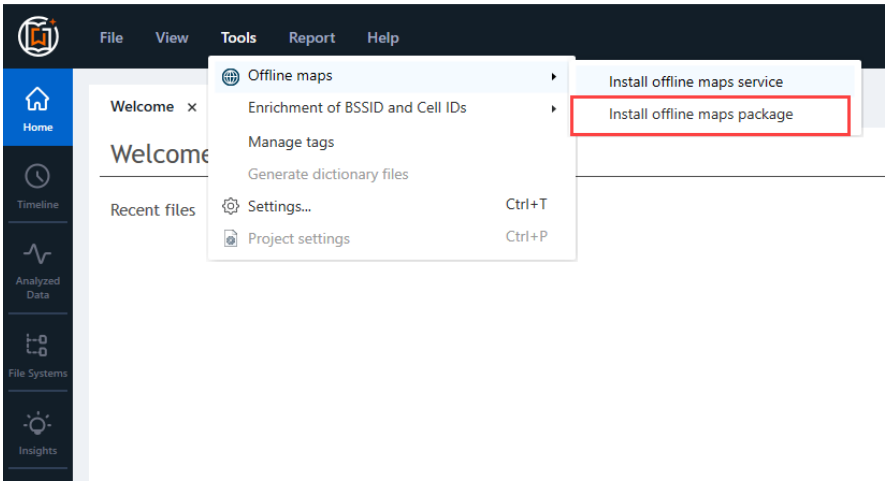
> The **Offline maps - Worldwide** package must be downloaded and installed before installing a regional offline maps package.

> To reduce merge processing time when working with a shared location, we recommend that only the user that has the offline maps on their machine installs new maps. Other users can still connect to the offline maps.

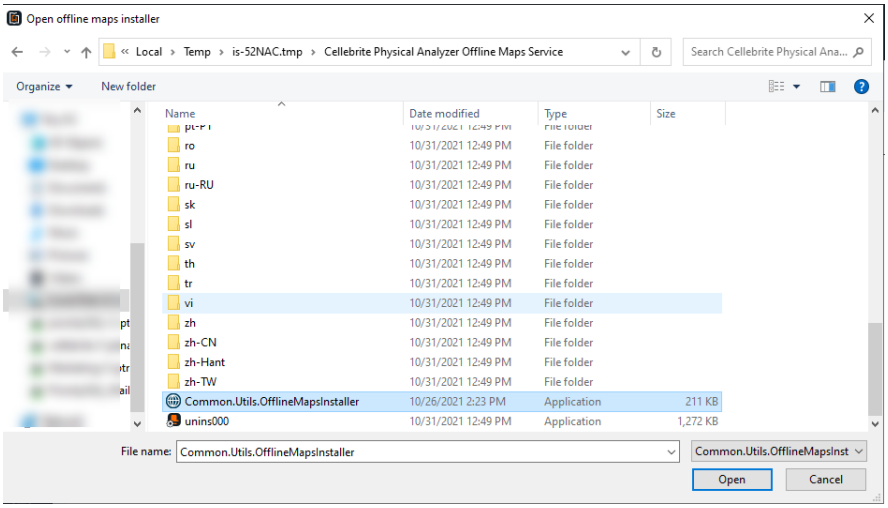
> Merge processing time also depends on network issues and how busy the central machine is when downloading.

To install the offline maps package in Cellebrite Reader

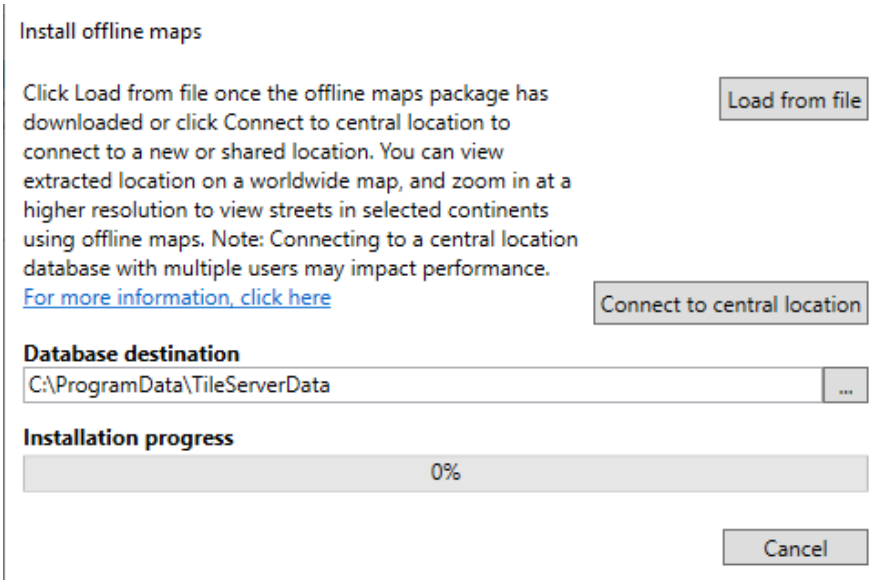
1. After downloading the relevant offline maps package, go to **Tools> Offline maps > Install Offline maps package**.



2. In the File explorer, select the offline maps installer that was installed in To install the Offline maps service


Open offline maps installer
Local › Temp › is-52NAC.tmp › Cellebrite Physical Analyzer Offline Maps Service
Search Cellebrite Physical Ana...
Organize
New folder
Name
Date modified
Type
Size
ro 10/31/2021 12:49 PM File folder
ru 10/31/2021 12:49 PM File folder
ru-RU 10/31/2021 12:49 PM File folder
sk 10/31/2021 12:49 PM File folder
sl 10/31/2021 12:49 PM File folder
sv 10/31/2021 12:49 PM File folder
th 10/31/2021 12:49 PM File folder
tr 10/31/2021 12:49 PM File folder
vi 10/31/2021 12:49 PM File folder
zh 10/31/2021 12:49 PM File folder
zh-CN 10/31/2021 12:49 PM File folder
zh-Hant 10/31/2021 12:49 PM File folder
zh-TW 10/31/2021 12:49 PM File folder
Common.Utils.OfflineMapsInstaller 10/26/2021 2:23 PM Application 211 KB
unins000 10/31/2021 12:49 PM Application 1,272 KB
File name: Common.Utils.OfflineMapsInstaller
Common.Utils.OfflineMapsInst
Open
Cancel

3. The Install offline maps window appears.


Install offline maps
Click Load from file once the offline maps package has downloaded or click Connect to central location to connect to a new or shared location. You can view extracted location on a worldwide map, and zoom in at a higher resolution to view streets in selected continents using offline maps. Note: Connecting to a central location database with multiple users may impact performance.
For more information, click here
Load from file
Connect to central location
Database destination
C:\ProgramData\TileServerData
...
Installation progress
0%
Cancel

Click ... to change the default location where the offline maps are installed.

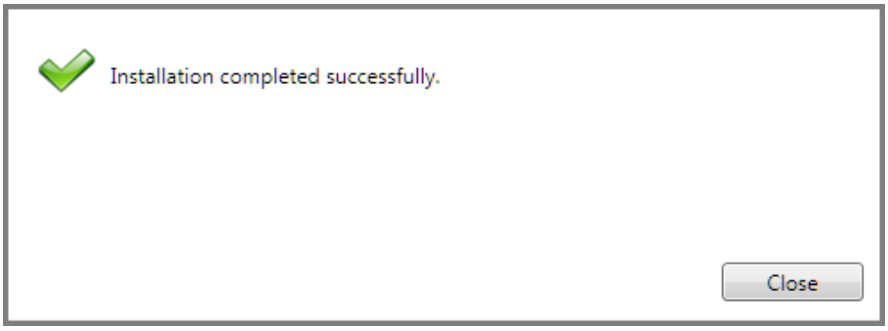
4. Select one of the following options:

   - Click **Load from file** to load the offline maps package. Due to the size of the file, the loading process takes some time to complete.

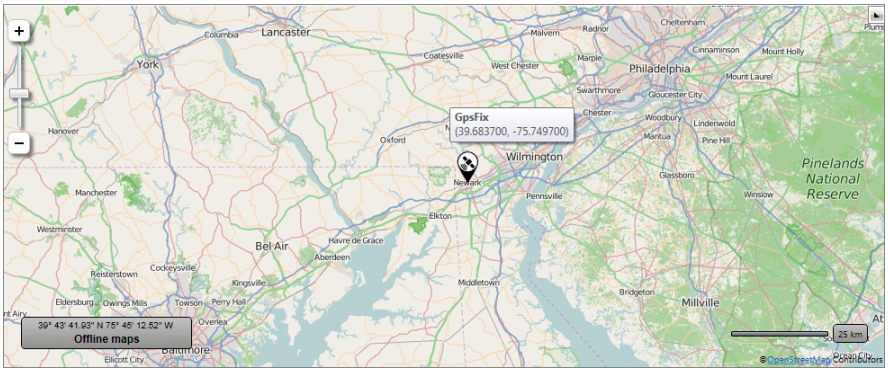
   - Click **Connect to central location** to connect to a shared location where the offline maps package has been saved.

     Connecting to a central location database with multiple users may impact performance

The following window appears.



The offline maps are installed and ready to use.


GpsFix
(39.683700, -75.749700)
Wilmington
Philadelphia
Lancaster
York
Bel Air
Pinelands
National
Reserve
39° 43' 41.93" N 75° 45' 12.52" W
Offline maps
25 km
©OpenStreetMap contributors

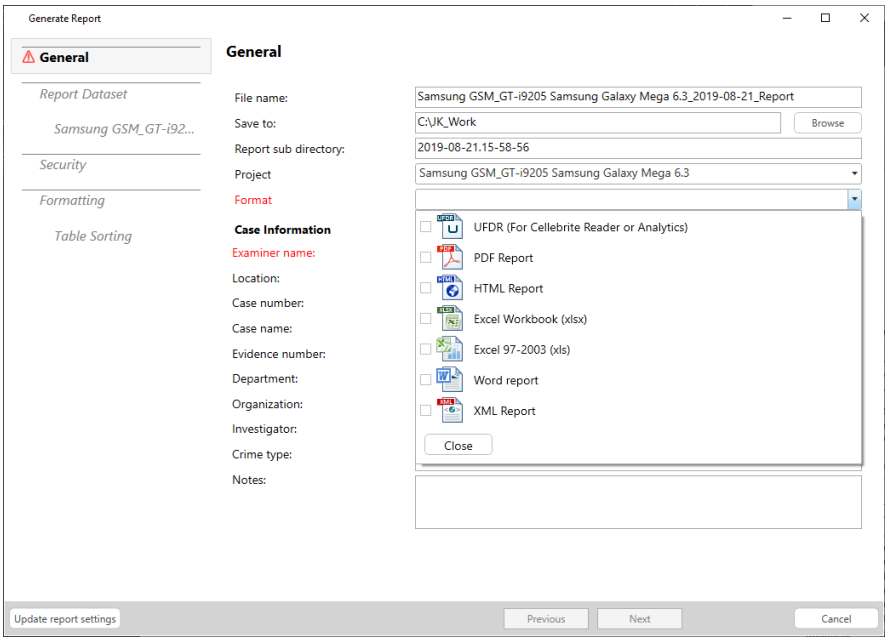
5. Generating a report

You can generate a report of the information in the project. Cellebrite Reader provides a report wizard to help you through the steps of creating a report.

To generate a Preliminary device report, see Generating a Preliminary device report (on page 101).

To generate a report, perform the following steps:

1. Select **Report** > **Generate Report** from the application menu. The Generate Report window appears.



2. Enter the relevant information in the **General** fields.

Field	Description
File name	Enter or edit the name for the new report. The default report name is `project name_date_Report` e.g., `Drone_DJI- Inspire 2_2017-12-25_Report` When more than one project is selected, the default name is `[Project_name]_date_Report` e.g., `[Project_name]_2017-12-25_Report`
Save to	Enter a location where the new report folder will be created.
Report sub directory	Enter a name for the new subfolder to contain reports. The default subdirectory name is the current date and time.
Project	Choose the projects to include in this report. Only projects that are already opened in Cellebrite Reader are available for reporting.
Format	Choose report formats. If multiple formats are chosen, a report is generated for each format. *Microsoft Excel 2003 reports that contain more than 65,536 rows cannot be opened in their entirety.

Fields in red are mandatory.

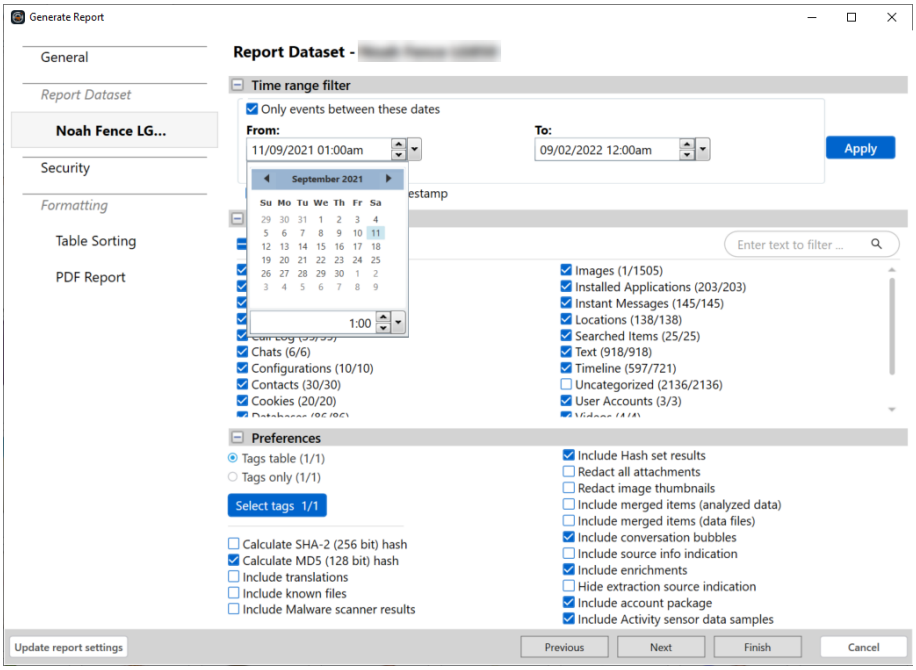
3. Enter the relevant information in the **Case information** fields.

> Listed are the default settings for these fields. See Setting the case information (on page 119). See Additional report fields (on page 111) and Report defaults (on page 112) for other defaults.Additionally, the last 10 values entered in these fields are also available in the dropdown list.

4. Click **Next**. The Report dataset window appears.

5.1. Report dataset settings

The dataset settings enable you to select events between specific dates and what data to include in the report.



To complete the Report dataset settings, perform the following steps:

1. (Optional) In the Report range filter area, select **Include only events between these dates**, enter the date range, the time range, and click **Apply** to update the data in the Extraction area.

   Select **include items without a timestamp** include events that do not have a timestamp.

2. Under the **Data types** heading, select the data types to be included in the report.

   The data types listed vary based on the data available in the selected projects and include all the data sets listed under Analyzed data and Data types in the project tree.

   Next to each data type, the number of items to be included in the report is displayed, alongside the total number of items of this type. The number of items included in the report may change based on your choices in the following sections.

3. Under the **Preferences** heading, select the preferences for the report.

	Description
Tags table	Select to include tag table in the generated report. To specify which tag labels to include or exclude, click **Select tags**.
Tags only	Select to include tags only (disables all Data types except for Device info) in the generated report. To specify which tag labels to include or exclude, click **Select tags**.
Select tags 3/3	Click to select which specific tag labels you want to include or exclude in your report. This is useful where not all examiners should be exposed to all the tagged items in an extraction.
Calculate SHA-2 (256 bit) hash	Select which calculated MD5 and SHA256 hash keys to add to each Data Files item in the generated report. This selection is for the whole report and applies to all projects within the report. To shorten the report generation process of large projects, do not select the Hash options.
Calculate MD5 (128 bit) hash	
Include translations	Select to include translated text.
Include known files	Include system images or files in your report. Clear this option to automatically filter out common, known, and system images and save critical investigation time that would otherwise be spent reviewing media images such as device icons or images that are included by default when installing apps.
Include Malware scanner results	Include results from Malware scanner.
Include Hash set results	Include results from hash databases run on the extraction.
Redact image thumbnails	Select to redact image thumbnails from PDF, Word, and HTML reports.
Redact all attachments	Select to redact all attachments.
Include merged items - analyzed data and data files	Select to include merged data from the Analyzed data section and the Data files section of the project tree. The **Include merged items** options are cleared by default. When these settings are selected, your report includes all items including duplicate items. The total numbers of items selected for the report may change based on these settings.
Include Cellebrite Reader	UFDR format only. Select to share UFDR reports with authorized persons using the Reader. The Reader executable is then included within the report output folder.
Include conversation bubbles	Select to include the chat bubbles of the conversation in the report. *To include the metadata of the chat bubbles, make sure that **Include metadata in conversation bubbles** under **Settings** > **Report Defaults** is selected.

	Description
Include source info indication	Select to include the source file information (as displayed in the Source file information column).
Include enrichments/Review	Select to include BSSID enrichments and Image classification.
Hide extraction source indication	Select to hide extraction source types. If cleared, the report indicates the type of extraction from which the field was obtained e.g., physical, logical, file system. If selected, the type of extraction is not displayed. Only relevant with the Multiple extraction feature; for single extractions, the extraction source type is not displayed.
Include account package	Select to include an account package, which is an export file that contains user credentials.
Include Activity sensor data samples	Select to include the sample data of all detailed measurements of the activity data.

4. Click **Next**. The **Security** screen appears.

5.2. Report security settings

The report security settings include two levels of protection:

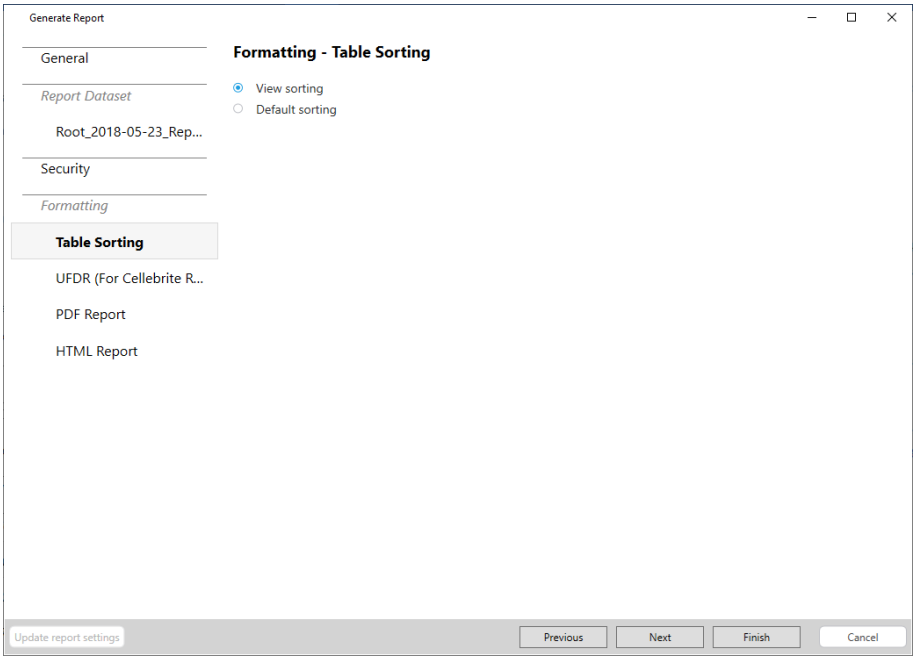
- (Optional) **UFDR protection**: UFDR files hold sensitive, confidential, and personal data; this security layer enables you to better protect data contained in UFDR files. The Reader and Cellebrite Pathfinder solutions can automatically read UFDR files, even if the security layer is selected. If you are importing UFDR files into third-party tools, do not select **UFDR protection**.

To complete the security settings, perform the following steps:

1. Select **UFDR** if you would like to protect the UFDR file.
2. (Optional) Select the report formats to protect with a password.
3. Enter and confirm the password.
4. Click **Next**. The **Layout** screen appears.

5.3. Report format settings

You can set the report format to meet your agency's requirements.



To complete the formatting settings, perform the following steps:

1. Select the Table sorting type:
   - **Default sorting**: to sort the items included in the generated report according to the default sorting set by Cellebrite for each of the file types.
   - **View sorting**: to sort the items according to the selected sorting field and the sorting order (ascending or descending) that was set by the user in each of the data display tables.

2. For each format chosen for this report, you can specify report parameters as listed in the following table.

Parameters	Description
Disable models categorization	Select to disable the separation and generate a report in which every data item is generated as a single section without subcategories separation. By default, a categorized report in which each category in the data items group is generated as a separate section in the report is generated. For example, when generating a report with Call logs, select **Disable models categorization** to generate the Call logs as a single list or clear **Disable models categorization** to break it to a separate list for each category of Call logs.
Logo Header	Text area where you can enter and format custom text to appear in the report header before the logo image.

Parameters	Description
Logo	Click **Select Image File** to add the logo image to appear in the report header. Supported file formats are: BMP, JPG, GIF, and PNG.
Logo Footer	Enter and format custom text to appear in the report footer after the logo image.
Show totals for items not in the report	Add a Total column to the report that displays the total number of items that were excluded from the report.
Show extended deleted state 1.	Include the state (Intact, Deleted, or Unknown) of deleted items in the generated report. When cleared, logs only the state of deleted items as Yes and is left empty for other states.
Number of lines for email preview	Set the maximum number of lines from each email message to appear in the report.
Display full email body	Display the entire message body.
Number of messages per chat	Set the maximum number of messages per chat message to appear in the report.
Display all chat messages	Display all chat messages in the report.
Font Family	For PDF reports only.
Split HTML report	Ensure that each section of the report starts on a new page. For HTML reports only.
Unprintable characters placeholder	Set the placeholder character to replace the unprintable characters. For Excel and ODS reports only.
The Excel report is compatible with OpenOffice	Select to ensure the Excel report can be opened in OpenOffice. For Excel and ODS reports only.
Generate Contact Identification Data	Select to add a sheet to the Excel report that provides a list of unique contacts based on type. For Excel and ODS reports only.

The parameters displayed vary based on the report types you have chosen.

3. Click **Finish**.

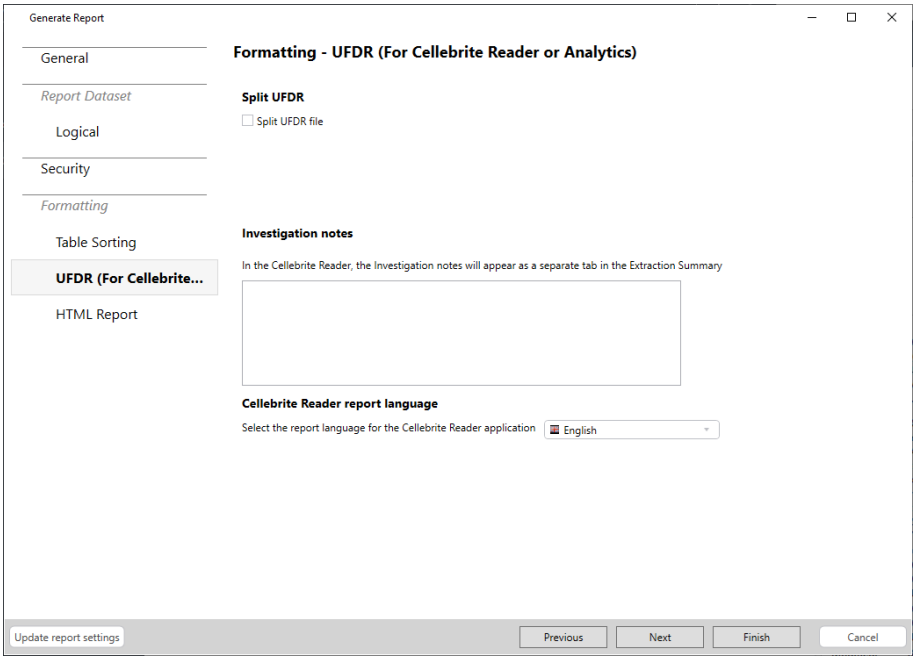
Finish button is unavailable until all the required fields are filled.

4. When the report is successfully generated, you are prompted to open the generated report file. The file opens using the associated application to the file format installed in the workstation.

> After a report has been generated for the project, it can be accessed from the Reports section in the project tree. Double-click on any of the generated reports to open it in the associated application installed in the workstation. Right-click any of the generated reports to open the report file or select **Open containing folder** to browse the files and folders of the report.

5.3.1. Formatting the UFDR file

This window enables you to split the UFDR file and add investigation notes.



5.3.1.1. Splitting the UFDR file

Splitting a UFDR file enables you to divide a file (too large to fit onto storage media) into multiple smaller files, for easy transfer. Select 700 MB for CDs, 4.7 GB for DVD, or a custom file size between 100 MB to 10 GB. When you open the UFDR file that has been split into separate files, Physical Analyzer automatically merges all the files into a single report.

To split the UFDR file:

1. Select **Split UFDR file**.
2. Select the required file size.
3. Click **Next**.

To open the split UFDR file in Cellebrite Reader select the main UFDR file (*.ufdr).

5.3.1.2. Adding investigation notes

You can enter notes in the area provided. These notes are displayed as a separate tab in the Cellebrite Reader, under the Extraction Summary.

5.3.1.3. Cellebrite Reader report language

In some cases, UFDR reports are shared with colleagues that need to review it in a different language. You can set the default interface language when opening a UFDR report. This allows the Cellebrite Reader to load in the predetermined language without the need to configure this in the Settings screen. The setting is stored for any UFDR that is created. In Cellebrite Reader, a message is displayed if the report language is different from the application.

5.4. Generating a Preliminary device report

Generate an 'at a glance' intelligence report that includes parsed device information and user account information. Such reports can be used as a quick reference for the lab, prosecutors, and investigators.

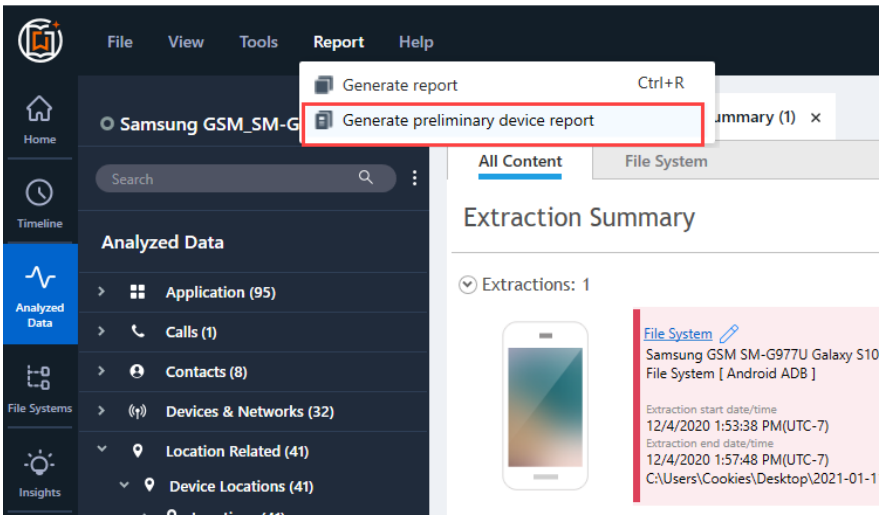
This report includes the device information and a hybrid of the data in the User accounts. This useful *at a glance* data can inform the investigation units about where other third-party evidence may reside and identify if accounts known to the investigation are still on the device.

This PDF report can be emailed to the investigation unit as soon as Cellebrite Reader has finished loading the extraction.

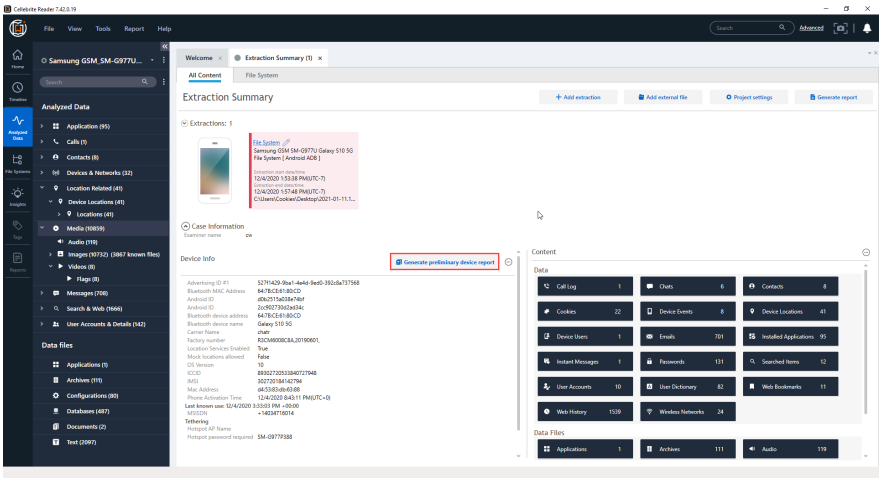
To generate a Preliminary device report:

There are two ways to generate this report:

- From main menu, select **Reports > Generate preliminary device report**.



- In the Extraction summary click **Generate preliminary device report**.



The PDF report is generated and stored to the default reporting path location.

6. Settings

The Settings window provides a set of functional and behavioral setup options used to fine-tune and control the functionality and usability of the application. The settings in the Settings window apply to all the projects open in Cellebrite Reader.

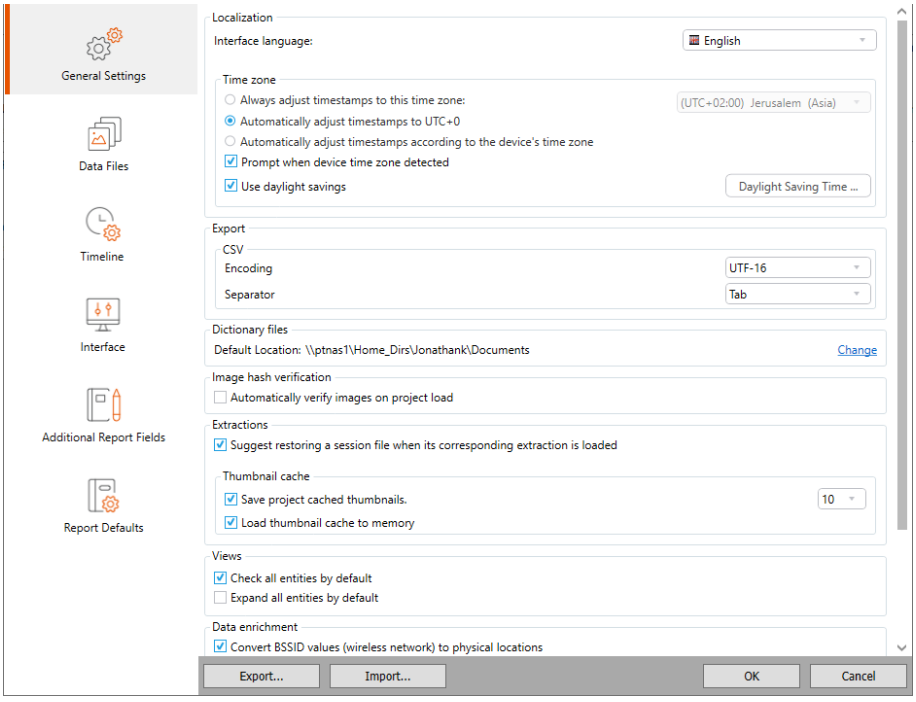
Changes to settings are lost when you close Cellebrite Reader. To save the settings configuration, see Exporting settings .

To access the Settings window:

» Select **Tools** > **Settings**.

6.1. General settings

Set general application settings in the **General Settings** tab.



Localization

To set the interface language of Cellebrite Reader:

» In the Localization area, in the **Language** list, select the desired interface language.

Time zone

To shift timestamps and enable daylight saving time:

1. In the Time zone area, from the Time zone settings (UTC) list, select one of the time zones (UTC -11:00 to UTC +14:00) to recalculate network-defined timestamps according to the time zone offset.
2. Select **Automatically adjust timestamps to UTC+0** to automatically adjust timestamps to UTC+0. We recommend this setting when working on multiple extractions, so that all records are presented according to the same adjusted time zone offset.

   Automatically adjust timestamps to UTC+0 is selected by default unless **Always adjust timestamps to this time zone** is selected.

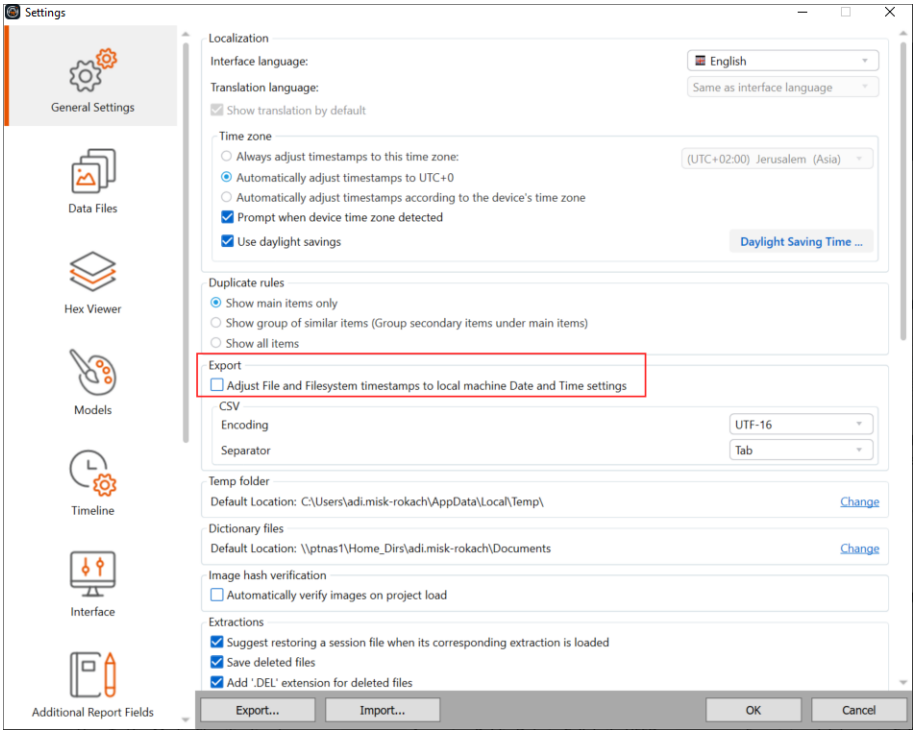
3. To automatically adjust timestamps to the device's time zone, select **Automatically adjust timestamps according to the device's time zone**. If selected, all timestamps are adjusted to the mobile device time zone, including report outputs.

   If the time zone of the device is identified during decoding, then a message is displayed allowing you to adjust all extractions to the devices time zone.

4. To enable daylight saving time, select **Use daylight savings**.
5. To change the start and end dates for daylight saving time, click **Daylight Saving Time**. For more information about changing the time zone settings, see Setting a unified time zone for the project (on page 117).

To use the device's time zone if detected:

» In the Time zone area, make sure that **Prompt when device time zone detected** is selected.



Duplicate rules

Set one the following rules for duplicate items:

- Show main items only
- Show group of similar items (Group secondary items under main items)
- Show all items

Export

To set the encoding and separator of exported CSV files:

1. In the Export area, select the desired encoding from the **Encoding** list.
2. Select the desired separator in the **Separator** list.

Dictionary files

To change the default location of the dictionary files:

- In the Dictionary files area, click **Change** and select a new location to be used when creating dictionaries.

Image hash verification

To automatically verify images on project load:

» In the Image hash verification area, Select **Automatically verify images on project load**.

Extractions

To offer to load a session file (that was saved in the folder where the extraction is located) when opening its corresponding extraction:

» In the Extractions area, select **Suggest restoring a session file when its corresponding extraction is loaded**.

Thumbnail cache

To set the number of extractions for the cached thumbnails in a project:

» In the Thumbnails area, select the number of extractions from 5 to 20. The default is 10.

If you do not want to save the cached thumbnails:

» In the Thumbnails area, clear **Save cached thumbnails in project**.

If you do not want to load the thumbnail cache to memory (to conserve disk space):

» In the Thumbnails area, clear **Load thumbnail cache to memory**.

Views

Selected entities are included in reports or results.

To select all entities by default to be including in reports, for all views:

» In the Views area, select **Check all entities by default**.

To disable the What's new page:

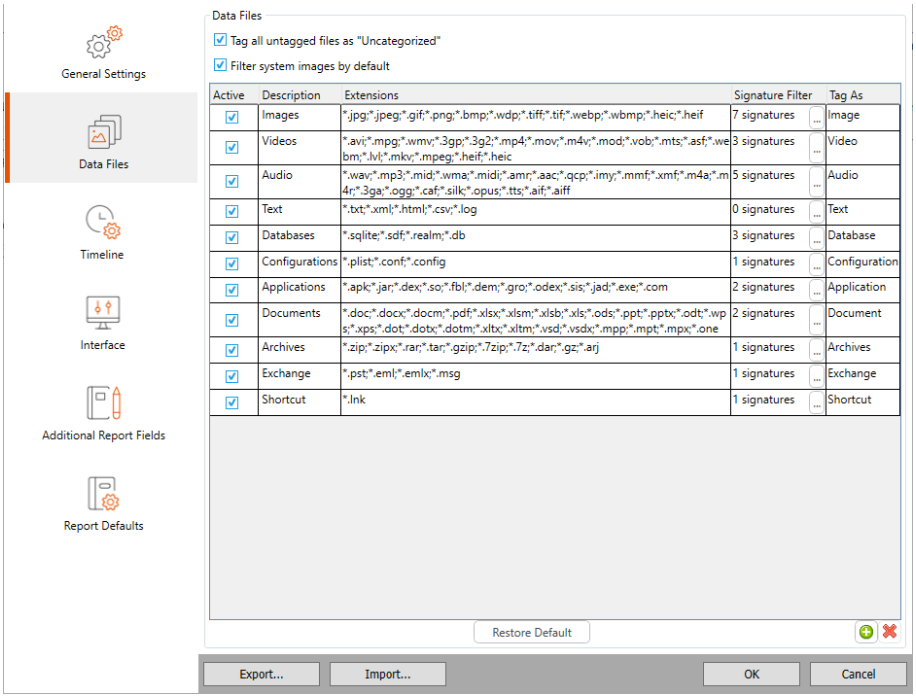
» In the Views area, select **Disable Tips & Tricks**.

Network

To disable network traffic (for example, do not check for new software versions):

» In the Network area, clear **Disable network traffic**.

6.2. Data files



The **Data Files** settings determine the different file and tagging groups under the **Data Files** and **Tags** tree items and the types of files filtered in each group.

Tags and filters

- Select to automatically tag untagged files as **Uncategorized**.
- Select to filter system images by default.

Data file settings

Every data file record contains the following settings:

- **Active**: Indicates whether to display (selected) or hide (cleared) this group of data files in the project tree.
- **Description**: A descriptive name for the type of data files to be used as the group name under the **Data files** tree item.
- **Extensions**: The file extensions to be used to filter the data files of this group.
- **Signature filter**: The header or footer signatures to be used to filter the data files of this group.
- **Tag As**: The tag name to be applied to the data file and used to list the files under **Tags** in the project tree.

6.2.1. Data files filtering methods

Groups can be filtered using one or more of the following methods:

- **Signature filter**: A signature filter is a definition of the file header or footer to be searched, to detect a file type and associate it with a specific Date File group. The header or footer can be configured in a defined range from the beginning and end of the file respectively by using the offset parameter.

  For example, a JPEG image starts with the header FF D8 FF and ends with the footer FF D9. Entering this information in the Header and Footer fields of the signature creates a signature that identifies JPEG images.

- **Extension filter**: An extension filter is a list of common file extensions that are associated with file formats that belong to the specific data file group.

  For example, the different image file formats can be filtered by the file extensions *.jpg, *.jpeg, *.gif, *.png or *.bmp.

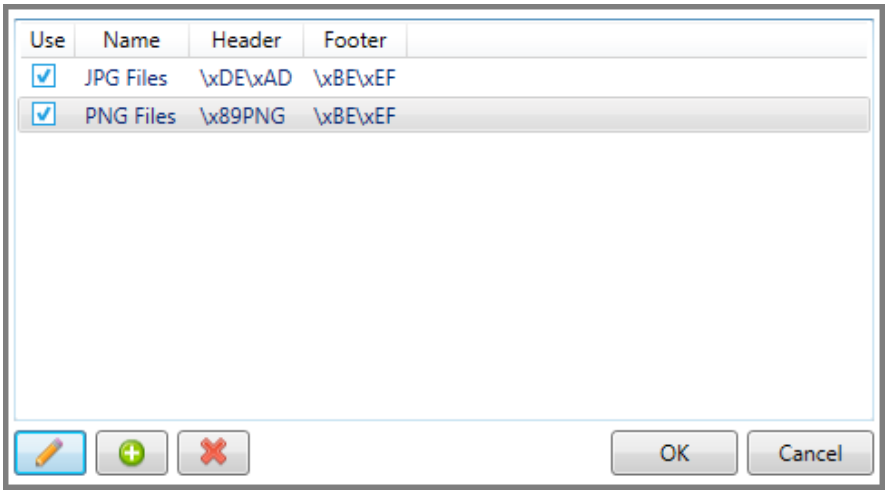
6.2.2. Managing data files settings

Add new types of data files, and edit and delete existing data file types.

6.2.2.1. Adding a new data file type

1. In the **Data Files** settings, click (bottom right of the window).

   A new row is added to the list.
2. Select **Active** to display the added data type in the **Data Type** tree item.
3. Click in the new row's **Description** field and type a file type description.
4. If applicable, in the **Extensions** field, type the file extensions commonly used by your data file type in the format ***.xxx**, separated by semicolons (**;**).
5. If applicable, in the **Signature filter** field, click and do any of the following:



- Click to add a filtering signature that identifies your data file type.
- Click to edit an existing signature filter.
- Click to delete a signature filter.

6. If applicable, click in the **Tag As** field and then click and select a tag name from the list.
7. To change the order of the data file types, use the arrows .
8. To clear the list of data file types you added, leaving only the default types, click **Restore default**.

6.2.2.2. Editing an existing data file record

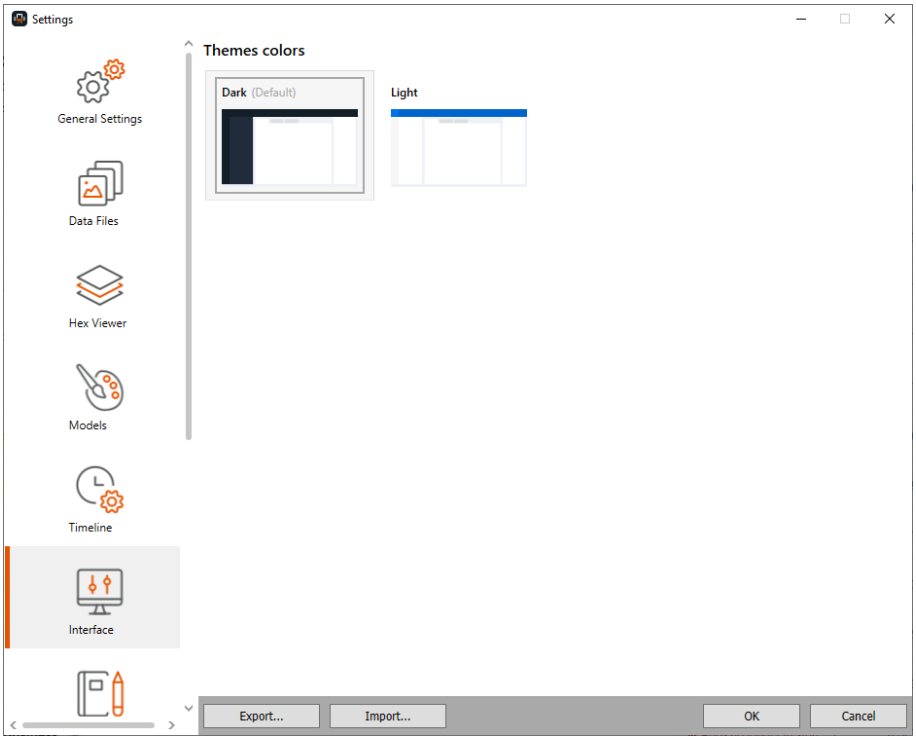
1. Click the row of the data file type that you want to edit.
2. Double-click in the column and row that you want to change and update the existing settings as desired.

6.2.2.3. Deleting a data file type

1. Click the row of the data file type that you want to delete.
2. Click .

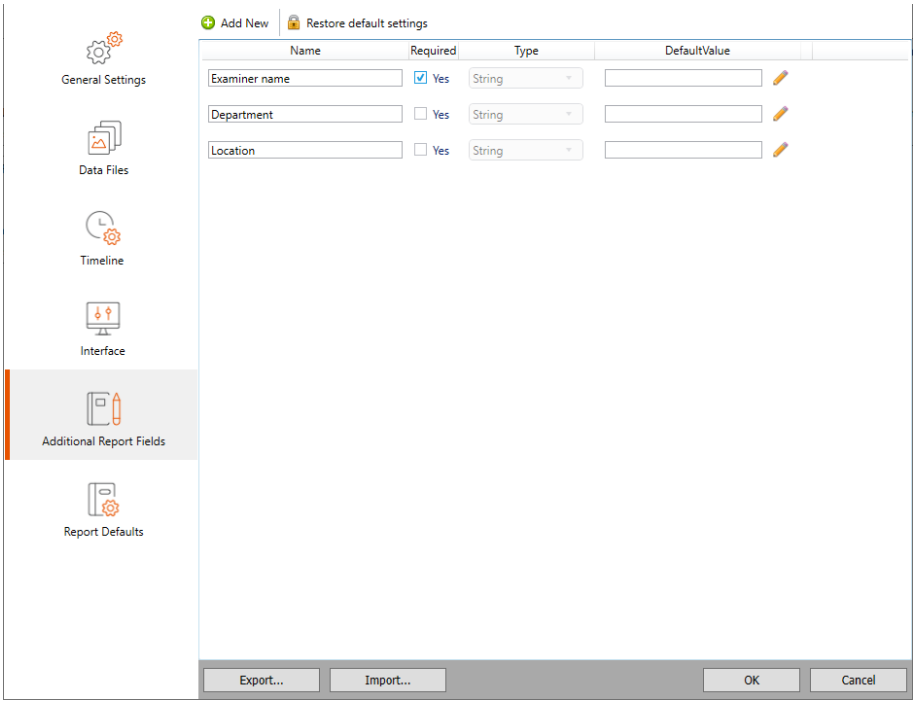
6.3. Interface

Set a theme for Cellebrite Reader, either light or dark interface.



Changing the interface configuration settings causes the application to close and then restart.

6.4. Additional report fields



Optional information is user-defined information presented at the beginning of the report. It usually includes information about the case, and investigator and organization details.

Every optional information record consists of the following fields.

Name	The name of the report field.
Required	Indicates if the field must be filled to generate the report.
Type	The types of entry - **String** or **List**.
Default value	Default content.

You can add new report fields, and edit and delete fields, as desired.

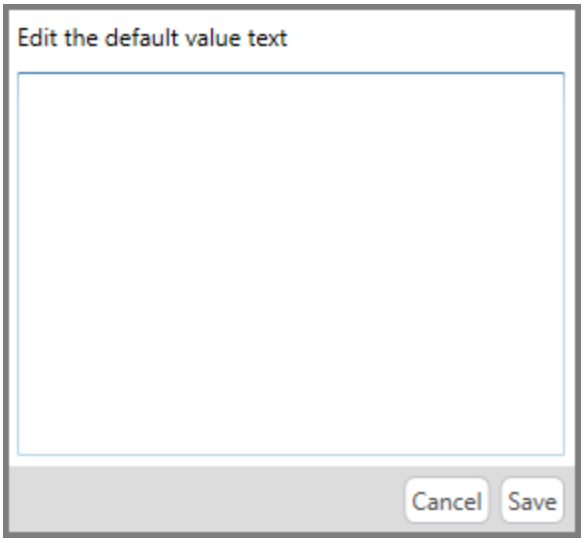
6.4.1. Adding a new report field

1. Click **Add New**.

   A new row is added to the table.
2. In the **Name** column, enter the name label to be displayed.
3. Select **Required** if this field must be filled for the user to generate the report.
4. In the **Type** list, select one of the following:
   - **String** for text entry fields
   - **List** for a specified list of options

5. In the **Default Value** field, set the default content:

   - For **String** type, type the default string. For a multiline string, click , enter the default string in the Option Editor, then click **Save**.



   - For a **List** type, click , enter the list items with each item on a separate line, then click **Save**.

6.4.2. Editing a report field

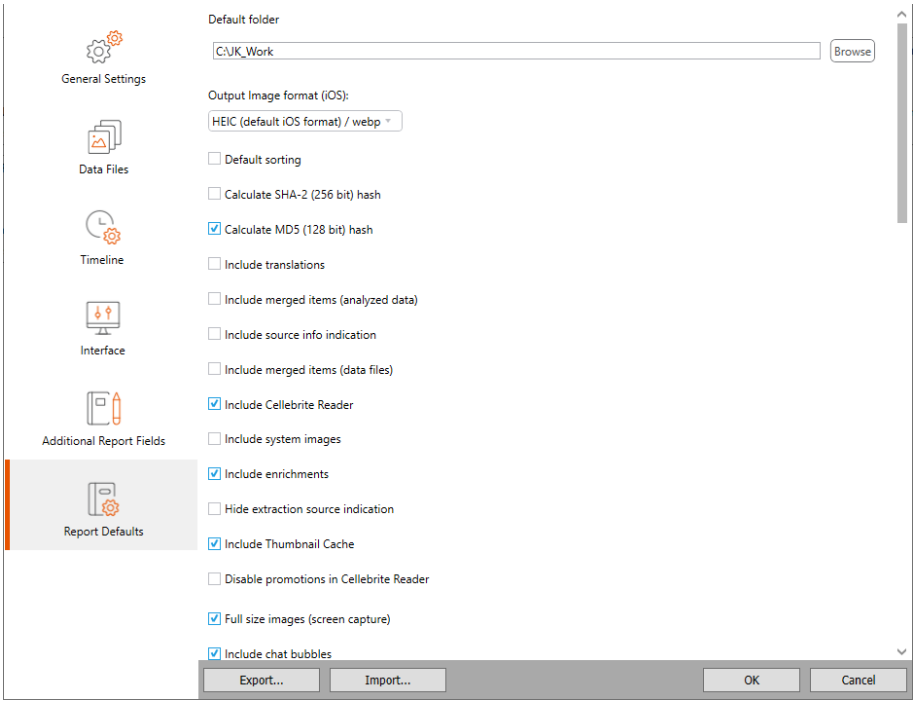
- To edit a report field, perform steps 2-5 of Adding a new report field (on the previous page), changing the parameters to suit your requirements.

6.4.3. Deleting a report field

- To delete a report field, click .

6.5. Report defaults

The **Report Defaults** settings enable you to edit the report presentation.



Scroll down to see all the fields.

General settings

- **Default folder**: enter the path to the folder where you want to save reports you generate for this report type.
- **Output Image format (iOS)** select the output image format.
- Select **Default sorting** to set sort the items included in the generated report according to the default sorting set by Cellebrite for each of the Analyzed and Data file types or clear **Default sorting** to sort the items according to the selected sorting field and the sorting order (ascending or descending) that was set by the user in each of the data display tables.
- **Calculate SHA-2 (256 bit) hash** and **Calculate MD5 (128 bit) hash**: Select which calculated MD5 and SHA256 hash keys to add to each Data Files item in the generated report. Do not select these options to shorten the report generation process of large projects.
- **Include translations** – Select to include any translated text in the report.
- **Include merged items (analyzed data)** – Select to include merged data from the Analyzed Data area.
- **Include Activity sensor data samples**: select to include Activity sensor data samples.
- **Include merged items (data files)** – Select to include merged data from the Data Files area.
- **Include Cellebrite Reader** – Select to share UFDR reports with authorized persons using the Reader. This is for the UFDR format only. The Reader executable is then included within the report output folder.
- **Include known files**

- Include account package – Select to include an account package with user credentials, which can be used by UFED Cloud.
- Include enrichments – Select to include BSSID enrichment data.
- Hide extraction source indication – Select to hide the source file information.
- Include Thumbnail Cache – Select to include the thumbnail cache.
- Disable promotions in Cellebrite Reader – Select to disable promotions in Cellebrite Reader.
- Full size images (screen capture) – Select to include full size images from the Screen capture tool.
- Include conversation bubbles – Select to include the chat bubbles of the conversation in the report. Select Include metadata in conversation bubbles to include the metadata.
- Include Malware scanner results
- Include Hash set results
- Redact all attachments
- Include silk converted files

For Excel reports, set the following:

- Unprintable characters placeholder: Set the placeholder character to replace the unprintable characters.
- The excel report is compatible with OpenOffice: Select to ensure the Excel report can be opened in OpenOffice.
- Generate Contact Identification Data: Select to add a sheet to the Excel report that provides a list of unique contacts based on type.
- Include map address for locations
- Show extended deleted state
- Contact identifiers in separate column

For HTML reports, set the following:

- Logo Header: Enter and format custom text to appear in the report header before the logo image.
- Logo: Click Select Image File to add the logo image to appear in the report header. Supported file formats are BMP, JPG, GIF, and PNG.
- Logo Footer: Enter and format custom text to appear in the report footer after the logo image.
- Show totals for items not in the report: Add a Total column to the report that displays the total number of items that were excluded from the report.
- Show extended deleted state: Include the state (Intact, Deleted, or Unknown) of deleted items in the generated report. When cleared, logs only the state of deleted items as Yes and is left empty for other states.
- Number of lines for email preview: Set the maximum number of lines from each email message to appear in the report.
- Display full email body: Display the entire message body.
- Number of messages per chat: Set the maximum number of lines per chat message to appear in the report.
- Display all chat messages: Display all chat messages in the report.
- Include map address for locations
- Split HTML report: Set each section of the report to start on a new page.

For PDF reports, set the following:

- Logo Header: Enter and format custom text to appear in the report header before the logo image.
- Logo: Click Select Image File to add the logo image to appear in the report header. Supported file formats are BMP, JPG, GIF, and PNG.
- Logo Footer: Enter and format custom text to appear in the report footer after the logo image.
- Show totals for items not in the report: Add a Total column to the report that displays the total number of items that were excluded from the report.
- Show extended deleted state: Include the state (Intact, Deleted, or Unknown) of deleted items in the generated report. When cleared, logs only the state of deleted items as Yes and is left empty for other states.
- Number of lines for email preview: Set the maximum number of lines from each email message to appear in the report.
- Display full email body: Display the entire message body.
- Number of messages per chat: Set the maximum number of lines per chat message to appear in the report.
- Display all chat messages: Display all chat messages in the report.
- Include map address for locations
- Select default font family

For Word reports, set the following:

- Logo Header: Enter and format custom text to appear in the report header before the logo image.
- Logo: Click Select Image File to add the logo image to appear in the report header. Supported file formats are BMP, JPG, GIF, and PNG.
- Logo Footer: Enter and format custom text to appear in the report footer after the logo image.
- Show totals for items not in the report: Add a Total column to the report that displays the total number of items that were excluded from the report.
- Show extended deleted state: Include the state (Intact, Deleted, or Unknown) of deleted items in the generated report. When cleared, logs only the state of deleted items as Yes and is left empty for other states.
- Number of lines for email preview: Set the maximum number of lines from each email message to appear in the report. The report includes links to text files containing the entire email.
- Display full email body: Set to display the entire message body.
- Number of messages per chat: Set the maximum number of lines per chat message to appear in the report.
- Display all chat messages: Display all chat messages in the report.
- Include map address for locations

6.6. Exporting settings

Export your settings to reuse later, or to share with another user.

1. In the Settings window, click **Export**.
2. In the Save As window, browse to the location where you want to save your settings configuration, and click **Save**.

   The settings are saved as a Cellebrite Reader Settings Configuration File (*.cnf).

6.7. Importing settings

Import your saved settings configuration.

1. In the Settings window, click **Import**.
2. In the Open window, browse to the location where your settings configuration is saved, select the configuration (*.cnf), and click **Open**.

   The settings are applied in the Settings window.

6.8. Project settings

Set unified time zone and case information for each project in **Tools > Project settings**.

6.8.1. Setting a unified time zone for the project

During extraction, one time stamp per event is extracted.

For outgoing events, the time stamp is typically taken from one of the following sources:

- User-defined device time (where the device time has been manually set by the user: timestamps are displayed without the unified time (UTC).
- Network-defined device time (where the device time is automatically set by the network): timestamps are displayed with the unified time (UTC).

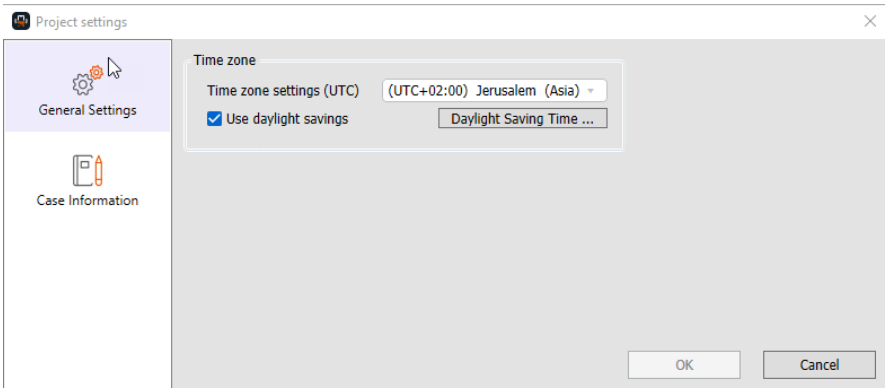
For incoming events, the time stamp is typically taken from the network-defined time (the time stamp assigned by the network); timestamps are displayed with the unified time (UTC).

Network-defined time stamps are subject to the time zones in which the event occurred.

Apply a unified time zone to the project to recalculate all network-defined time stamps according to the selected time zone to consolidate the events and view them sequentially in Cellebrite Reader.

To apply a unified time zone to the project:

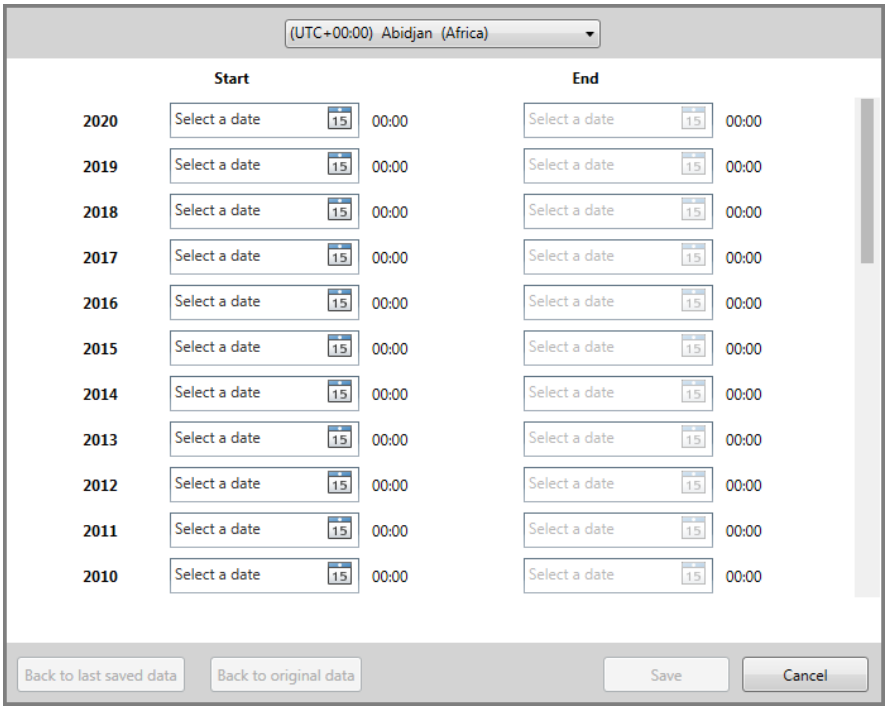
1. Do one of the following:
   - In the project **Extraction Summary** tab, click **Project settings**.
   - Go to **Tools > Project settings**.



2. From the **Time zone settings (UTC)** list, select:
   - **Original UTC value** to show time stamps as recorded.
   - One of the time zones (**UTC -12:00** to **UTC +13:00**) to recalculate network-defined time stamps according to the time zone offset.

> User-defined time stamps are not included in these recalculations; they are displayed as recorded.

3. To change the start and end dates for daylight saving time, click **Daylight Saving Time**.



a. For the year that you want to change, use the calendar to select the start and end dates, or edit the dates directly. You can use the ✗ button to remove certain years.

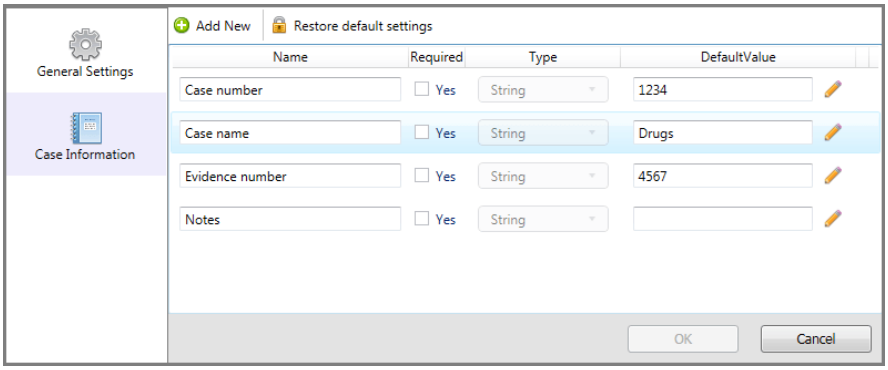
b. Click **Back to last saved data** to reset the table to the last time that you saved the data, click **Back to original data** to return the table to its default settings, or click **Save** to save the table with any changes that you made.

4. Click **OK**.

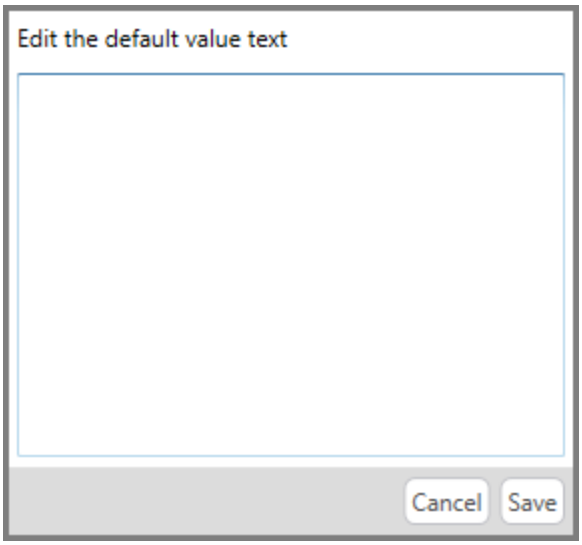
   The project is recalculated according to the selected unified time zone and the new time zone is applied to the network-defined time stamps. Time stamps of events displayed in Cellebrite Reader windows and any subsequently generated reports reflect the selected unified time zone.

6.8.2. Setting the case information

1. Case information settings are saved with the project. The case number appears with the extraction information on the Welcome tab.
2. In the project **Extraction Summary** tab, click **Project settings**.
3. Click **Case Information**.



4. Click **Add New**.
5. In the **Name** column, enter the case name.
6. Select **Required** if this field must be filled.
7. In the **Type** list, select one of the following:
   - **String** for text entry fields
   - **List** for a specified list of options
8. In the **Default Value** field, set the default content:
   - For **String** type, type the default string. For a multiline string, click , enter the default string in the Option Editor, then click **OK**.



   - For a **List** type, click , enter the list items with each item on a separate line, then click **OK**.
9. To add more rows, click **Add New** and repeat steps 4-7.
10. To remove the entry, click .
11. To restore the default settings, click **Restore default settings**.

7. Menus

This section describes the menus and commands.

File menu (below)

View menu (on the next page)

Tools menu (on page 123)

Report menu (on page 124)

Help menu (on page 125)

7.1. File menu

Open UFDR file	Open a file for analysis using the standard analysis process.
Recent	Displays a list of recent projects.
Add external file	Include related artifacts in your case such as search warrants, additional images, and relevant documents. See Adding external files to a case (on page 17).
Close tabs	Close all the tab windows for a specific project.
Close	Closes the currently active project.
Save project session	Saves the active project information generated by the user as a Cellebrite Reader Session File (*.pas). See Saving a project session (on page 16).
Load project session	Loads a Cellebrite Reader Session File (*.pas) onto an open project in the project tree.
Exit	Closes the Cellebrite Reader and all active sessions.

7.2. View menu

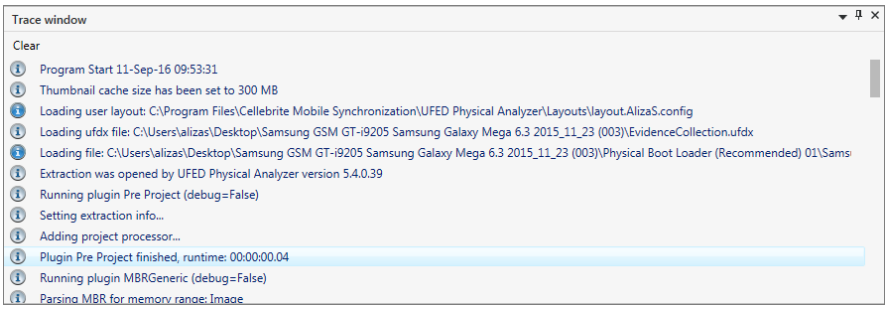
Welcome screen	Displays the **Welcome** tab. See Welcome tab (on page 34).
Trace window	Show or hide the trace panel at the bottom of the data display area.

7.2.1. Viewing the trace window

Show the Trace window at the bottom of the data display area to view a log of the actions performed in your session by you or by Cellebrite Reader, such as plug-in activation.

1. In the **View** menu, select **Trace window**.

   The Trace window appears below the data display area.


Trace window
Clear
Program Start 11-Sep-16 09:53:31
Thumbnail cache size has been set to 300 MB
Loading user layout: C:\Program Files\Cellebrite Mobile Synchronization\UFED Physical Analyzer\Layouts\layout.AlizaS.config
Loading ufdx file: C:\Users\alizas\Desktop\Samsung GSM GT-i9205 Samsung Galaxy Mega 6.3 2015_11_23 (003)\EvidenceCollection.ufdx
Loading file: C:\Users\alizas\Desktop\Samsung GSM GT-i9205 Samsung Galaxy Mega 6.3 2015_11_23 (003)\Physical Boot Loader (Recommended) 01\Sams
Extraction was opened by UFED Physical Analyzer version 5.4.0.39
Running plugin Pre Project (debug=False)
Setting extraction info...
Adding project processor...
Plugin Pre Project finished, runtime: 00:00:00.04
Running plugin MBRGeneric (debug=False)
Parsing MBR for memory range: Image

2. To clear the log, in the Trace window, click **Clear**.
3. To close the Trace window, click ✕.

The Trace window can be hidden or displayed.

- To pin the Trace window open, click 📌.
- To unpin the Trace window, click ⊣.
- To view the Trace window when hidden, select or mouse over the tab.

7.3. Tools menu

Offline maps	**Install offline maps service** (when using for fist time) **Install offline maps package** Downloaded from MyCellebrite
Enrichment of BSSID and cell IDs	Opens the Enrichment database submenu, from where you can install the database, import and export XML files with BSSID and cell tower data, as well as online enrichment. See Enrichment of BSSID and cell IDs (on page 64).
Manage tags	Opens the Manage tags window. See Using Tags (on page 66).
Generate dictionary files	Create alphanumeric files with all the words in a decoded project. See Generating dictionary files (on page 65).
Settings	Opens the application settings window. See Settings.
Project settings	Set unified time zone and case information for each project. See Project settings (on page 117).

7.4. Report menu

Generate Report	Generates a report summary of all information found by the analysis process. See Generating a report (on page 90).
Generate preliminary device report	Generates an 'at a glance' intelligence report that includes parsed device information and user account information. See Generating a Preliminary device report (on page 101).

7.5. Help menu

Supported apps	Lists the supported applications and verified versions for Android, BlackBerry, iOS, and Windows Phone devices.
Manual	Opens the user manual.
Check for new version	Check for new software version if connected to the Internet.
Zip log files	Zips the log files and opens the folder where the zipped log files are saved.
Zip log files with system information	Zips the log files and includes detailed information about the operating system, drivers, application data, event logs etc. This information can be used to analyze report cases.
License agreement	Opens the software license agreement.
About	Provides information about the installed Cellebrite Reader version.

8. Glossary

C

CAS

Cellebrite Advanced Services (CAS) offers customers the ability to recover valuable evidence from heavily damaged, locked, or encrypted devices.

Cellebrite UFED 4PC

Enables users to deploy extraction capabilities on Windows based tablets, laptops, and desktop computer systems. It performs physical, logical, file system and password extractions on a wide range of devices.

Cellebrite UFED Touch

Enables the simplified extraction of mobile device data. Depending on the license purchased, it performs physical, logical, file system and password extractions on a wide range of devices.

P

Physical/Logical Analyzer

An analysis and reporting tool for logical, file system and physical extractions. This software solution provides users with the capability to extract data, perform advanced analysis, decoding and reporting and presenting the results in a clear and concise manner.

U

UFED

Universal Forensic Extraction Device

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